The Mining Journal,

RAILWAY AND COMMERCIAL GAZETTE:

FORMING A COMPLETE RECORD OF THE PROCEEDINGS OF ALL PUBLIC COMPANIES.

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R. JAMES H. CROFTS, STOCK AND SHARE BROKER, AND MINING SHARE DEALER,
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...iness negociated in Stocks and Shares not having a general market value.
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...iness in all the principal COTTON SPINNING Shares.
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...Asheton, £1¼.	50 Exchequer, 32s.	20 Monydd Gorddu, £2¾
...Argentine, £1¼.	10 Eberhardt, £8.	50 North Laxey, 14s.
...Aberdaunant, 13s. 6d.	20 Flagstaff, £2¼.	25 Pestarena, 4s. 6d.
...Bampfylde, 8s.	25 Hingston, 18s. 9d.	25 Parys Mountain, 7s. 6
...Bedford United, 14s	10 Great Laxey, £21.	20 Penstruthal, 11s.
...Cathedral, 18s. 9d.	25 Glyn, £1 12s. 6d.	10 Roman Gravels, £12¾
...Chicago, £4½.	20 Holmbush, £1¼.	10 Richmond, £8 1s. 3d.
...Clementina.	25 I.X.L., 17s. 6d.	50 Rookhope, 19s.
...Chontales, 7s. 6d.	20 Llanrwst, £2½.	10 Tankerville, £8¼.
...Combmartin, 8s.	15 Llangan, £5½.	25 Van Consols, £1 17s 6d
...Derwent, £3.	3 Lisburne, £61.	20 W. Tankerville, 25s.
...D'Eresby, £21.	10 Leadhills.	10 W. Tank. Pref., £2½.
...Don Pedro, 9s. 6d.	5 Minera.	

*** Shares sold for forward delivery (one, two, or three months) on deposit of 20 per cent.

...OREIGN BONDS — ARGENTINE — EGYPTIAN — RUSSIAN, SPANISH, TURKISH. SPECIAL BUSINESS, and latest information. ...rtnightly accounts opened on receipt of the usual cover.
JAMES H CROFTS, 1, FINCH LANE, LONDON.

...AILWAYS.—SPECIAL BUSINESS. Fortnightly accounts opened on receipt of the usual cover.
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...Cardiff & Swan., 38s 3	25 Chapel House, £3½.	10 West Cumberland.

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*** SPECIAL BUSINESS in the following SELECTED SHARES at the prices named:—

Name of Mill.	Last four dividends, per cent.				Closing quotations. April 13. Buyers,	Sellers,
Central	26,	20,	10,	10	£ 2¼	£ 3
Greenacres	30,	20,	5,	15	4½	5
Green Lane	25,	30,	25,	20	65	70
Oldham Twist	32,	26,	12,	15	22½	25
Royton	30,	20,	10,	10	2¼	2½
Shaw	20,	16,	10,	16	2½	3
Star	25,	20,	8,	14	2½	3
Windsor	26,	20,	10,	16	2¾	3¼

NOTE.—The shares of good Cotton Spinning Companies pay remunerative dividends, the mills being almost entirely conducted on the Co operative System, under the Limited Liability Acts. With a revival in trade the present rate of dividends would be augmented.
JAMES H. CROFTS, 1, FINCH LANE, LONDON.
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IMPORTANT.—In consequence of the existing general depression, the Shares of several Sound Dividend and Progressive Mines may now be obtained at prices which are very much in favour of purchasers, and investments made at the present time in this direction will, in all probability, yield very satisfactory results within a comparatively short period. A reaction must take place before long, and those who secure well selected Shares now will be enabled to realise large profits.

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FOR SALE, at prices annexed:—

100 Aberdaunant.	15 East Van, £5⅝.	70 North Laxey, 14s. 6d.
10 Asheton, 38s.	10 Eberhardt, £8 1s. 3d.	15 New Quebrada, £3 18 9
75 Almada, 7s. 6d.	40 Exchequer, 34s.	60 Parys Mount., 6s. 6d.
20 Argentine.	25 Frontino, 36s. 6d.	25 Pennerley, 9s 6d.
35 Birdseye Ck., 16s. 6d.	15 Flagstaff, £2 16s. 3d.	50 Penstruthal, 11s. 9d.
25 Blue Tent.	20 Glyn, 32s.	100 Rookhope, 19s.
100 Chontales, 7s. 6d.	30 Glenroy, 21s. 6d.	10 Roman Grav., £12⅜.
30 Condes of Chili.	40 Hingston.	30 Richmond, £6⅛.
50 Cedar Creek, 12s.	50 I.X.L., 14s. 6d.	10 So. Condurrow, £7⅛.
15 Chicago, £4¼.	100 Javali, 7s. 9d.	15 Tankerville, £8⅜.
20 Colorado, 36s. 6d.	20 Kapanga, 41s.	10 Van, £35.
80 Combmartin.	50 Last Chance, 12s.	40 Van Consols, 38s. 6d.
20 Chapel House.	10 Leadhills, £6¼.	50 West Tankerville.
30 Derwent, £2 18s. 9d.	25 Llan Gan.	15 Wye Valley.
50 Don Pedro, 9s. 6d.	40 Marke Valley, 19s. 6d.	30 Wheal Grenville.
40 East Caradon, 16s. 9d.	20 Monydd Gorddu.	

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20 Penstruthal.
Sellers please state lowest price.

SELLER OF—		
10 Binn's Band.	50 Derwent.	20 Rookhope.
10 Cargoll.	20 Flagstaff.	5 West Asheton.
50 Combmartin.	15 Grogwinion.	5 Wye Valley.
15 Chapel House.	10 North Laxey.	20 West Mostyn, 12 per cent. preference.
10 Chicago.	15 Penstruthal.	
	20 Prince of Wales.	5 West Wye Valley.

Best offers to be made for above, or prices on application.
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	Buyers.	Sellers.
Almada	6s.	8s.
Argentine	£ 4	£ 4½
Assheton	1½	1¾
Bodidris	1	1¼
Chapel House	3	3½
Derwent	2¼	2½
Devon Great Consols	4	4½
Dolcoath	33	34
Don Pedro	8s.	10s.
Eberhardt	8	8¼
East Caradon	12s.	14s.
East Van	5	5¼
Exchequer Gold	1⅜	1⅝
Flagstaff	2⅛	2¼
Frontino	1¾	1⅞
Glenroy	1	1½
Glyn	1½	2
Great Laxey	20	21
Javali	5s.	7s.
Last Chance	8s.	12s.
Ladywell	1	1¼
Leadhills	6	6¼

	Buyers.	Sellers.
Marke Valley	14s.	16s.
North Laxey	14s.	16s.
New Quebrada	£ 3¼	£ 3⅜
New Zealand Kapanga.	2	2¼
Parys Mountain	6s. 6d.	7s. 6d.
Pennerley	10s.	12s. 6d.
Penstruthal	9s.	11s.
Richmond	6	6¼
Roman Gravels	12	12½
Rookhope!	17s.	18s.
Santa Barbara	2¼	2½
San Pedro	11s. 6d.	13s.
South Condurrow	7	7¼
Tankerville	8	8½
Tincroft	16	18
Van	35	37
Van Consols	1¾	2
West Assheton	¾	1
West Chiverton	15	16
West Tankerville	1	1¼
Wh. Grenville	1	1½

N.B.—Offers invited for 100 Talybont, 50 West Maria and Fortescue, 10 Lisburne, 25 Wheal Grenville, 20 Marbella Iron, 100 St. Harmon, and 50 West Wye Valley.
Orders on hand to purchase Gorsedd and Merllyn, Aberdaunant, Llanrwst, Mellancar, South Condurrow, and West Tankerville. Sellers can obtain the best market prices of the day on application as above.

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20 Bilson and Crump.	20 Flagstaff.	50 Penstruthal.
21 Blaen Cwmbach.	20 Gorsedd and Merllyn Consols.	25 Van Consols.
25 Chapel House.	15 Glenroy.	100 Patent Ligno Mineral Paving.
50 Aberdaunant.	10 Leadhills.	50 London Wood Pavement.
100 Bampfylde.	75 Llanrwst.	
150 Don Pedro.	20 Pennant.	
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Aberdaunant, 13s.	Hingston, 11s.	Parys Mountain, 6s.
Bampfylde, 8s.	Holmbush.	Rookhope, 17s. 6d.
Combmartin, 8s.	Leadhills, £6½.	Roman Grav., £12¼.
Derwent, £2⅞.	Llanrwst, £2⅜.	Tankerville, £8¼.
Devon Consols, £4⅛	Llanidloes.	Van Consols, 35s.
East Van, £5½.	Marke Valley, 17s. 6d.	Wheal Newton
Grogwinion, £4½.	North Laxey, 13s. 6d.	Wheal Peevor, 35s.
Great Laxey, £21.	Pateley Bridge, £2¼.	West Tankerville, 28s 6d
Glenroy, 23s.	Pennerley, 10s.	W. Tanker. (pref), 46s.
Greenhill.	Penstruthal, 10s. 3d.	W. Wye Valley, £2 13 9
Almada, 6s.	Exchequer, 30s.	N. Zealand Kap., 43s 9d
Argentine, £4 3s. 9d.	Emma, 7s.	Pestarena, 4s. 6d.
Cedar Creek, 12s.	Flagstaff, £2¾.	Port Phillip, 10s. 3d.
Chicago.	Frontino, 36s.	Richmond, £6.
Chontales, 5s. 3d.	I.X.L., 16s. 6d.	Santa Barbara.
Don Pedro, 9s. 6d.	Javali, 8s. 6d.	South Aurora, 6s. 3d.
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Strongly recommend the ABOVE MINE as one of the BEST and SAFEST MINING INVESTMENTS. The dividends are declared half-yearly—the one now being paid is at the rate of 20 per cent. per annum, against 12½ per cent. last time. Every information upon application to the above.

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The shares of these companies should be bought. The prospects have recently improved very much, and good discoveries have been made.

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IMPORTANT TO CAPITALISTS.
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MESSRS. ALEXANDER ROBINSON AND CO. recommend for purchase:—
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VAN MINE, ROMAN GRAVELS, and
COMBELLACK TIN MINE.
The "Stock Exchange Review" (specimen number sent free) contains particulars of these and many other good investments, and should be read by large and small capitalists. The firm will have pleasure in supplying information based on practical knowledge.
36, Throgmorton-street, London, E.C., April 28, 1877.

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NOTICE.—We regret to find that some of our clients have been induced to PURCHASE LLANRWST SHARES, advertised in this Journal at low prices about two months since, and up to the present time have been unable to obtain the delivery of the same. Purchasers of these shares when offered at low prices will do well to see that the transfer is certified by the Secretary of the company, or the certificate attached before they part with their money.
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Lectures on Practical Mining in Germany.

CLAUSTHAL MINING SCHOOL NOTES—No. XXII.*

BY J. CLARK JEFFERSON, A.R.S.M., WH. SC.,
Certificated Mining Engineer.
(Formerly Student at the Royal Bergakademie, Clausthal).
[The Author reserves the right of reproduction.]

SECTION II.

PROSPECTING FOR MINERALS—BORING.

II.—THE CONSIDERATION AND DESCRIPTION OF THE SEPARATE BORING TOOLS.

BORERS FOR ENLARGING THE BORE HOLE.—It occurs not unfrequently that it is necessary to enlarge the bore hole, either from having commenced with too small a diameter, or that the ground, &c., in the upper portion may have been so hard that the dimensions of the bore hole have become too rapidly diminished, and on coming into softer strata it is desirable to enlarge the hole; or it may have been necessary to line the sides for some distance, and afterwards, beneath the lining, to enlarge the hole to the original dimensions. We have thus two sorts of enlarging borers, the object of the one being to enlarge a hole which has been already sunk, and that of the other the enlargement of a hole which is partially lined. The enlarging borer with two sets of cutters consists of a shaft which branches out towards the lower part into four arms; or more properly of a broad blade, which is cut out of the lower part in the centre, and which has two cross arms, the ends of which form cutters, rounded to suit the finished diameter of the bore hole. The chisel edge projects from ½ in to ¾ in. below the edge of the circular cutters, so that by this arrangement the former enlarges the hole, whilst the latter smooths and rounds it off. This enlarging borer is only suitable where the required enlargement is but of small extent.

The apparatus called the stone catcher, designed by Von Oeynhausen to be employed with the enlarging borer just mentioned, in order to catch the stones and *debris* which would otherwise fall to the bottom of the bore hole, may here be described. It consists of a long (about 2 ft) cylindrical bucket, the bottom of which is rather conical than hemispherical, and the diameter of which is about ¾ in. smaller than that of the bore hole before it is enlarged. The cylinder is attached by means of a fork, which terminates in a square shaft, to the after borer. For this purpose the end of the shaft has a screw made on it, which scress into a corresponding (tapped) hole in the borer. The length of the fork and shaft piece is about 2½ ft. The stone catcher thus served, as it were, as a guide to the borer, but according to the experience obtained by Herr Beer at Lobec, in Bohemia, it was found that although the greater part of the stones were caught, still it was impossible to avoid a great number falling, and getting jammed between the catcher and the bore hole. In order to avoid these tight wedgings between the catcher and the side of the bore hole Herr Kind altered the construction, making the shaft of the fork in two parts, which are connected together by means of a hinge. This arrangement, however, did not satisfactorily fulfil the expectation of Kind; there is but little saved by this over the ordinary method of using the sludger, and as long catchers are very liable to be jammed fast by falling stones, &c., which might lead to serious breakages, the use of the stone catcher has been abandoned.

An enlarging cutter, divised by Kind, consists of a shaft (square in section) the lower part of which enlarges to a solid bell-shaped figure, the diameter of which is the same as that of the finished bore hole. In this bell-shaped portion four large semicircular grooves are cut, in such a manner that the water, sludge, &c., can readily escape along them. The bottom is somewhat hollowed out, by which a better edge is given to the cutters. This instrument is capable of rendering good service in small bore holes, where the required enlargement is not great, but for large bore holes, and where the enlargement is considerable, Kind's after borer, which we have described, is to be preferred.

Mr. C. Combes, in his "Traité de l'Exploitation des Mines," describes an after borer which may be used either in percussive or rotatory boring. It consists essentially of a long solid iron cylinder attached to the bottom of the boring rods. Along this cylinder are four (or more) dovetailed grooves, into which four broad blades can be passed from the bottom of the cylinder, and they are secured by a cap, which screws on to the bottom of the cylinder. The cutters have an edge along the side (also along the bottom when it is intended to bore by rotatory boring); the lower edges along the bottom are slightly inclined. The durability of this after borer is not great, as it can only be used in mild strata.

The second class of after borers, which are used for enlarging a bore hole below the length of tubing, are generally called wing borers. It is evident that the arrangement of such a borer must be somewhat complicated, and that it must consist of several pieces, both of which are disadvantages to be avoided as much as possible in all boring instruments.

Herr Kind has devised two wing borers, one of which is meant for enlarging in a downward and the other in an upward direction. The first of these we shall describe consists of two legs, hinged together in such a manner that they are held apart to any required extent by means of a sliding iron wedge. For this purpose there are two plates rivetted on both sides of the wedge. These plates project somewhat beyond the wedge, so that they form guides for sliding the wedge up and down between the two legs. The upper half of the legs is broader than the lower half, the cutting edge being formed about the middle, the lower portion of the upper half projecting more than the rest, so as to form the cutter. To these two plates a fork is attached, which passes over the borer. When the wedge is in its lowest position the borer can be readily passed down through the lined bore hole. When the borer has passed through the hole below the lining, and it is wished to enlarge the hole, a rope, which is affixed to the top of the fork, and passes up to the surface, is drawn slightly upwards, and along with it the iron wedge, and by this means the legs are separated apart. To keep the wedge in its place the rope is drawn tight, and fastened at the upper end to some suitable part of the head of the rocking lever. In order to limit the extent to which the legs are separated apart two small pins are inserted in the legs, and over them an iron ring of suitable length is passed. Of course, the width to which the legs are first opened out is limited by the width of the original bore hole, and until the ground has been worked away to the intended width the lift of the rods is very small. When sufficient has been bored to render the use of the sludger advisable the rope is loosened at the surface, the wedge slips downward, until a hook attached to the wedge rests upon the ring, which thus prevents the wedge falling quite out; the legs fall together, so that the apparatus can without difficulty be drawn to the surface.

It will be evident that for a short distance immediately beneath the tube the bore hole will still remain of the original smaller diameter, and that if the lining has to be carried further down this portion must also be cut away or enlarged. This is best accomplished by boring upwards, and for this purpose Kind devised a second apparatus. This consists, like the instrument we have just described, essentially of two legs, moveable about a pin. The lower ends of the legs are rounded, and turned up, forming two steel cutters. When the legs are made of wrought-iron the cutters (which are always of steel) are welded on. A ring passes over the two legs, and in its lowest positon rests upon the cutters. To this ring a light fork is rivetted, and at the upper part it is attached to a rope. The wedge is provided at its upper end with a hook, by means of which it hangs on a ring. Two plates are vivetted on to the sides of the wedge, and serve to guide the wedge. To prevent the ring being raised too high there are two projections on the legs, which when the wedge, &c., are in position for cutting to the required diameter of the bore hole project sufficiently to catch the ring. In boring with these after borers they should not be rotated more than two or three times in any direction, in consequence of the twist which is then given to the rope. It is most desirable to give them two rotations, first in one direction and then in the other.

Combined Borer and After Borer.—The first of these which we shall describe was invented by Hacker, and afterwards improved by Kind. The lower portions—the blade and the shaft—are exactly similar in construction to Kind's borer, with ear cutters, described in our last lecture. The upper part of the shaft is differently constructed. It is made rectangular in section, and is so shaped that the two after cutters, which are hinged on the pins (with square ends) can lie close against the shaft in in an inclined position, so as to allow of the apparatus being lowered within a lined bore hole. Two flat oval plates cover both sides, and hold the pins in their proper position; they are fastened to the shaft with countersunk screws. Two short rods are attached to the after cutters, to the upper ends of which two ropes, 6 ft. to 8 ft. long, are fastened, the other ends of the ropes being made fast to a pin on one of the shaft rods. On the ropes being lowered to the bottom of the bore hole they become thoroughly wet, and contract so as to draw the after cutters into a horizontal position. When it is required to draw the borer out of the hole the projection of the after cutters makes no great obstruction, since they are rounded off on the upper side; the tension of the ropes causes the cutters to rub against the sides of the lining, but does not produce any damage. To prevent the cutters shaking loose during the descent a small pin is placed between the side covering plates, but not sufficiently firm to prevent their giving way on the contraction of the rope. It will be evident from this description that there is a liability of the ropes contracting within the lining of a wet bore hole, and drawing the after cutters out when any further descent of the apparatus without breakage is impossible. In order to obviate this the pins to which the rods are attached are lengthened sufficiently to hold another rod suspended below from it. From these new rods a small piece of wire passes round the bottom of the cutting blade, and is made sufficiently tight to hold the after cutters down in their inclined position. On the borer reaching the bottom of the hole the first or second blow cuts the wire, and releases the cutters, which being subjected now only to the tension of the ropes are drawn out.

Kind's combined borer is the next which we shall describe. It may be used in a bore hole of any depth, and in one either a wet or dry. On the lower rod three or four set screws are inserted; these serve as supports for a spiral spring, which is passed over and down the rod. On the top of the spring rests an iron ring, which is provided with two small hooks, to which the ends of a pair of iron wires are attached, the other ends being fastened to small loops fixed to the after cutters, so that when the spiral spring presses against the ring and the set screws the after cutters are drawn slightly out into a horizontal position. When it is required to lower the apparatus the spiral spring is compressed, and the after cutters being centred on pins drop into an inclined position, and are held in this position by inserting a short piece of wood. When the borer has been lowered to the bottom of the hole, and one or two blows have been given, the small piece of wood is loosened by the vibrations and falls out; the spiral spring distends, and raises the wires drawing the after cutters outwards into an horizontal position. The after cutters, which are toothed, are made of cast-steel, and can be readily replaced when worn out on removing the side plates.

Degousée has invented an enlarging borer, which is only intended to be used in rotatory boring, or where the fall is very small. It consists principally of a solid cylinder (welded on to the lower end of a rod), in which are two horizontal openings, which serve for the reception of the cutters. These are hinged on bolts, the holes for which are bored in at the bottom of the cylinder. The bottom of the cylinder is covered with a short conical piece, which screws into the bottom. When the instrument is to be used the cutters are turned into the openings, and the instrument is lowered to the position to which it is intended to bore; the apparatus is then suddenly twisted round, when the cutters fly out. In order to raise the instrument, it is twisted in the opposite direction, and the cutters fly back into their former position. This apparatus is now but seldom used for after boring; Degousée himself used it chiefly for cutting or withdrawing the lining from a bore hole.

In the borings at Scherfede the following instrument was used for enlarging the bore hole. This consists of a short strong fork, to the two ends of which a pair of strong bars are hinged, the extreme ends of which form the cutters. Through the neck of the fork a strong screw passes, the lower end terminating in a joint. Connecting this joint and the two bars are two short strong links. The upper portion of the rod of which the screw forms a part consists of a short, square, and a somewhat longer cylindrical piece, which terminates in a screw, and it is by means of the latter that the instrument is connected to the upper rods. When the instrument rests at the bottom of the bore hole, and the rods and along with them the screw are rotated, in the one direction the cutters are drawn together and in the other they are forced wider apart. This instrument was greatly improved by Herr Grund, and used in the boring at Pyrmont. In the place of the two short links which formed the most defective part of the instrument Grund used a wedge, which was attached to the screw, and against which the cutting bars found a strong support.

All instruments for after-boring have the disadvantage that the after-cutters can but seldom be made sufficiently strong to prevent them coming loose from the repeated blows, and that if used in conjunction with a fore-borer they are more rapidly worn away than the latter, and where a great change in the physical character of the rock occurs the fore-borer may be working in a rock which requires a different fall to the rock in which the after-cutters are working. The great advantage in their use lies in the fact that a single size of lining will often serve for a considerable depth without having to resort to the expedient of narrowing the size of the bore hole, and inserting the lining in a telescope fashion. The lining of the bore hole can take place at the same time as the sinking of the bore hole, which is often a necessity in quick ground, the end of the lining being 5 ft. above the bottom of the hole, allowing 3 ft. for the height of the after-cutters above the edge of the borer, and 2 ft. for the working fall of the instrument.

AUXILIARY APPLIANCES IN EARTH BORING.—The bore tube shutter (Ger. "bohrschere") serves to cover the top of the bore tube, so as to prevent anything falling into it, and also as a support for the rods, though the bore-fork is more generally used for the latter purpose. The opening which is formed in both halves of the shutter allows the passage of boring rods, and has, consequently, a somewhat larger section than the boring rods; it must be exactly in the centre line of the bore hole. The opening is usually square, one-half of the square being formed in the one side of the shutter and the other half in the other. When the sides are slid apart the top of the bore hole is opened, but when they are closed together they leave only a small square opening, somewhat larger than the section of the boring rods. The oval form is to be preferred, as it most effectually closes the bore hole. The halves or legs are hinged and held tightly closed by a ring which passes over the ends of the legs, and is prevented from slipping off by a pin. The bore tube shutter is often made entirely of sheet-iron or thin boarding, but it cannot thus serve the purpose of catching or holding the rods. The bore fork is intended to support the boring rods whilst being screwed or unscrewed. The two legs of the fork are not parallel to one another, so that the opening between them is so varied that it will serve for rods of varying section; it is made of the best iron, and must, of course, be made strong enough to support the whole weight of the rods when hanging in the bore hole. The "bohrbundel," which has much similarity to the bore tube shutter, serves to catch the rods in case anything should break above the top of the bore tube during boring or the lowering or raising of the rods; it consists of two legs hinged together, and provided at the centre with two holes; the one for rods square the other for rods round in section. By means of a screw the bohrbundel can be clamped tight in any position on the boring rods. The hand brace is for the purpose of enabling the borer to be gradually rotated; it must be so arranged that it can be readily attached to any portion of the boring rods above the surface, and give sufficient leverage for the rotating of the rods. The construction is very various, but the instrument is so very simple as to need no explanation. A hand brace for round rods, by M. Ponson, consists of two wooden griffs or handles, which are fitted on the ends of a wrought-iron bar; the latter has a central slit, in which the two nippers slide, and they are tightened against the rod by means of a thumb screw. The hand brace may be attached to the most convenient place on the rods at the surface; it is often fixed on the swivel of the lengthening screw, or on the bore rods above the bore shaft, or even immediately above the guiding bore tube. Besides the apparatus we have described the bore house should be provided with a number of miscellaneous tools, such as keys, a universal key, hammers of various weights, chisels, wedges, nails, cord, plummet, water tub for receiving the sludge, &c.; lamps for the shaft and house, measures, chalk, black board, oil cans, &c.

III.—THE BORING OPERATION.

This divides itself into two distinct operations, which we shall consider separately:—

A.—The boring of the hole, and

B.—The clearing of the hole of the sludge and debris or sludging.

A.—THE BORING OF THE HOLE.—The diameter of a bore hole is generally dependant on the character of the strata which are expected to be bored through and the depth to which it is intended to carry the bore hole. The harder the rock the smaller (in diameter) can the bore hole be made, as the amount of boring will be less, and the sides will not require any support in the shape of lining, which would reduce too much the diameter of a small hole. If the stratum is soft and requires to be lined the bore hole must be made larger in diameter, especially if it is intended to carry it to any great depth. In no case should a bore hole be commenced with a less diameter than 5 in., nor continued with a diameter under 3 in.

In boring for coal to a depth of 100 to 120 yards a diameter of 6 in. is the most usual, but when the stratum is soft the diameter is sometimes 8 in. or more. For a depth of 300 yards and in unknown strata 8 in. is the minimum diameter, or better 9 to 12 in., or more may be taken as the minimum diameter, according to the sort of apparatus it is intended to bore with. One should never be afraid of making a bore hole too large at the commencement, since should it become necessary to enlarge the bore hole the enlargement will be found to cost nearly as much as an entirely new hole of the same width. In an entirely new neighbourhood at first only one bore hole should be driven down, and of a somewhat larger diameter than the rest; and when from this one the general character of the district is known, the other bore holes may be made narrower if the stratum will allow of it.

In choosing the apparatus with which to bore the hole the depth and diameter of the hole must be considered, and also the character of the strata. Under 50 yards in depth the ordinary windlass or lever apparatus (without the free-fallers) is very often used, but above that depth they will be found slow and expensive. For such a simple boring with rods a bore house, such as the one we have previously described by Degousée, or simply a triangle of tolerable height, will be suitable. The lever should be about 16 ft. to 18 ft. long, the length of the long arm to that of the short arm being in the proportion of 4 to 1 or 5 to 1. The rope (of hemp, 1 in. to 1½ in. diameter) should be wound round a drum about 18 in. to 20 in. diameter. The rope for raising the sludger need not be more than ¾ in. to 1 in. diameter. The length of the rods should be about 9 ft. long, with screwed joints. The section for a depth of about 25 yards should be ¾ in. square; for 50 yards deep, 1 in. square; for 100 yards deep, 1¼ in. square; for 150 yards deep, 1½ in. square; and for 200 yards deep, 1¾ in. square. The section of the screw must be equal to that of the rods. The borer itself may have the form descrined in No. XXI, or with ear cutters described in the following number.

The sludger or shell pump used by Messrs. Mather and Platt with their rope-boring apparatus consists of a cylindrical shell or barrel of cast-iron, about 8 ft. long, and a little smaller in diameter than the size of the bore hole. At the bottom is a clack opening upwards, somewhat similar to that in ordinary pumps; but the seating instead of being fastened to the cylinder in an annular frame is held up against the bottom of the cylinder by a rod passing up to a wrought-iron bridge at the top, where it is secured by a cotter. Inside the cylinder a bucket works, similar to that of a common lift pump, having an indiarubber disc valve on the top side. The rod supporting the bottom clack passes freely through the bucket. The rod of the bucket itself is formed like a long link in a chain, and by this link the sludger is suspended from the shackle of the winding rope. The wrought-iron bridge at the top of the cylinder prevents the bucket from being drawn out of the cylinder. The bottom clack is made with an indiarubber disc, which opens sufficiently to allow the finer *débris* to enter the cylinder; and in order to enable the pieces of broken rock to be brought out as large as possible the entire clack can be raised bodily about 6 in. from the annular frame, thus allowing sufficient space for the larger pieces of rock to enter the cylinder when drawn in by the upstroke of the bucket. When the sludger is lowered into the bore hole for clearing it, which is done at the rate of 500 ft. per minute, the *débris* is pumped into it by raising and lowering the bucket three or four times at the bottom of the bore hole, which is readily effected by the reversing motion of a winding engine. The sludger only remains at the bottom of the bore hole about two minutes, and its emptying occupies about two or three minutes.

* Being Notes on a Course of Lectures on Mining, delivered by Herr Bergrat, Dr. VON GRODDECK, Director of the Royal Bergakademie, Clausthal, The Harz North Germany.

DEEP BORING FOR COAL IN LINCOLNSHIRE.

At the Institution of Civil Engineers meeting, on Tuesday (Mr. GEORGE ROBERT STEPHENSON, President, in the chair), a paper was read "On a deep Boring for Coal at Scarle, Lincolnshire," by Professor EDWARD HULL, F.R.S.

This boring was commenced about four years ago by a local company to test the presence of coal in the neighbourhood of Lincoln—Mr. J. T. Boot, of Mansfield, being the engineer—and had been carried out by the Diamond Rock Boring Company. The total depth attained was 2030 feet; but as this depth was insufficient for the object in view, it was desirable that the bore-hole should be carried further down. The following formations, with their approximate thicknesses, had been passed through:—

	Depths.		Thickness.
Alluvial strata.....Feet	1 to 10	...Feet	10
Lower lias clay and limestone...	10 to 75	.....	65
Rhœtic beds.....	75 to 141	.....	66
New red marl and sandstone ...	141 to 1500	.....	1359
Permian beds	1500 to 1900	.....	400
Carboniferous strata	1900 to 2030	.....	139

Although the carboniferous strata had been reached, the cores brought up were of so peculiar a character as to leave it uncertain to what portion of the carboniferous formation they belonged; and, as the question of the eastward extension of the Yorkshire coal field was one on which a boring at this spot was calculated to throw much light, it was important, both in an economic and in a scientific point of view, that it should be continued until something definite had been determined.

PHOSPHOR-BRONZE.—At the Society of Arts, on Thursday, Mr. Alexander Dick read a paper on "Phosphor-Bronze and its Applications." After some preliminary remarks on the properties of the various kinds of bronze in past and present use, the author described the material mentioned in the title—an alloy of bronze with phosphorus in varying proportions, adjusted in accordance with the special requirements of the particular article to be manufactured. Phosphorus has the power of conferring a greater homogeneity on the alloy, eliminating oxygen and increasing the elasticity and absolute resistance of the metal. The hardness can be regulated to almost any required degree, and the new metal has been successfully employed for a variety of purposes, including bells, wire-ropes, edge-tools, machinery work, locks, gunnery, and fittings of almost every description. It can be at once cast into the desired shape and burnished without further "working," and has the advantage over ordinary bronze of retaining its polish unimpaired by the action of air or water. A considerable number of specimens, both of rough ingots and of cast articles, such as those above enumerated, were displayed on the table and examined with much curiosity after the

conclusion of the paper. A discussion arose, when many practical questions were put to and answered by the author, who, on the motion of the Chairman, Mr. W. N. Hartley, F.C.S., was awarded a cordial vote of thanks for the introduction of the subject.

MINERAL WEALTH OF MOROCCO.—In a paper read at the Society of Arts, Mr. A. Leared said the mining industry, which is at present systematically discouraged, might be prosecuted to great advantage in Morocco. The southern provinces are especially rich in minerals. The mountains which separate Sus from Draa abound in iron, and 50 or 60 miles south-west of Terudant iron of a very superior quality, used for making gun barrels, is found. In the same ridge of the Atlas Mountains are several mines of copper, combined with gold, and also rich silver mines. Lead, sulphur, and saltpetre are found to the east of Terudant. Antimony and lead are also found in Sus. This does not exhaust the list of mines of which the Atlas is so productive Possibly, in the districts near the seats of power, mining might be carried on by European capital and skill, by special permission of the Sultan. But in Sus and the southern districts the attempt would be hopeless until life and property become secure. During the discussion, Mr. Rochusson said the main point of interest, he thought, was the mineral resources, which were not yet thoroughly worked, for between Cape Juby and Mogador there were great deposits of malachite and copper, and also what were known as the "Iron Mountain," where there were deposits of iron such as were not dreamt of in England, and only about 35 or 40 miles from Mogador, the country between being almost flat. The state of the iron trade in Europe at present was not such as to encourage the investment of capital, but the ores on the northern slopes of the Atlas range were turned to account on a great scale by the steelmakers of Barrow, by Krupp in Prussia, and by the great French ironmasters, such as Schneider of Creuzot, and they would certainly find a better supply on the southern range. Undoubtedly, its copper, iron, silver, and nickel were sources of wealth which had been hitherto entirely overlooked.—The Chairman asked how he would provide for working the iron.—Mr. Rochusson said he proposed to export the ore, not to work the iron there. There was a great deal of copper working in Morocco, the whole of the copper coinage being made of native copper. The ironstone was also worked in the same way as the so-called Roman or Spanish Catalan furnace, which was, again, similar to the process enployed in Bengal. —Mr. Grace, having resided in Mogador for the greatest part of the last 20 years, said he had noticed considerable improvement in the country during that time, but certainly its mineral resources deserved more attention. There were copper mines within 30 miles of Mogador, some of which yielded 40 per cent. of metal, and he had sent home several parcels which had yielded 29 per cent. There were thousands and thousands of tons, but though they had applied several times to the Sultan, and had offered him $1,000,000 a year for permission to work, or to form a company to work, the mines on his account, his answer was always the same—that his fathers had never worked the mines, and he would not, Lead ore they had been allowed to export under the name of antimony, for they dare not call it by its right name, and it yielded 80 per cent. of metal, of very good quality; but owing to the great expense of transport it did not pay.

Registration of New Companies.

The following joint-stock companies have been duly registered:—

EAST CRAVEN MOOR LEAD COMPANY (Limited).—Capital 30,000*l.*, in 10*l.* shares. To acquire mines in the parish of Appletreewich, Yorkshire, leased from Mr. John Yorke, of Beverley Hall, Yorkshire. The subscribers (who take one share each) are—Ralph Hislop, Silverdale, Pinner Wood House, Watford; J. C. West, Meadon Lodge, Honor Oak; N. Learoyd, Tunbridge Wells, gentleman; John Rendall, 40, Norfolk-road, Dalston; C. J. St. Alphonse, Stock Exchange, stock jobber; W. J. Tallentire, 20, Change-alley, Cornhill, stockbroker; J. E. Reading, 3, Crowley-street, Liverpool. The directors are not yet appointed, but they are to receive 150*l.* per annum until a dividend of 10 per cent. be declared, when it will be increased to 300*l.* The qualification is 25 shares.

TYN-Y-FRON LEAD MINING COMPANY (Limited).—Capital 10,000*l.*, in 1*l.* shares. To acquire the mining sett known as the Tyn-y-Fron, parish of Llanbadarnfawr, Cardigan. The subscribers (who take one share each) are—W. B Stephens, Northumberland part, Tottenham, merchant; Henry Thompson, 14, Manley-street, Stratford, accountant; W. C. Lockhart, the Jerusalem, Cornhill, Insurance agent; Henry Francis, Goginan, engineer; E. Miller, 24, King William street, accountant; F. V. Gurney, Cheshunt Common, no occupation; E. T. Payne, Cheshunt, no occupation.

NORTH PATRICK LEAD MINING COMPANY (Limited).—Capital 20,000*l.*, in 1*l.* shares. To acquire lands in the parish of Ysceiliog and Holywell, Flint, known as the North Prince Patrick, together with the business of the North Prince Patrick Lead Mining Company (Limited). The subscribers, who take one share each, are—E. Hilton Radfair, Clapham Park, no occupation; J. Walker, Oxford House, Croydon, gentleman; R. H. Moore, Lewisham-road, no occupation; J. Taylor, 86, London Wall, inspector of mines; T. R Clarke, Brixton, accountant; John Ross, 7, Herne Villas, Herne Hill-road, Dulwich, clerk; F. T. Buffen, Wool Exchange, public accountant. The directors are Messrs. E. Hilton, John Walker, and Joseph Taylor, the qualification being the holding of 250 shares. The remuneration will be 300*l.* per annum to be increased to 500*l.* upon payment of a 10 per cent. dividend.

BRITISH AND AMERICAN MORTGAGE COMPANY (Limited).—Capital 1,000,000*l.*, in 10*l.* shares. To advance money on the security of real property in America and elsewhere. The subscribers, who take 75 shares each, are—H. C. E. Childers, 17, Princes Gardens, W.; Joseph Hubback, 6, Sandon-terrace, Liverpool; G. J. Shaw-Lefevre, 10, Upper Berkeley-street; Beaumont W. Lubbock, 15, Lombard street; Charles Nicholson, Totteridge; W. B. Shattuck, New York; W. H. Stone, Dulwich.

THE ANGLO AMERICAN LAND MORTGAGE BANK (Limited).—Capital 250,000*l.*, in 5*l.* shares. To advance money upon the security of property in the United States or Canada. The subscribers (who take one share each) are—George Cheliew, 43, Addison Gardens, South Kensington; T. H. Fowler, 9, Serjeants' Inn, Fleet street; John Rae, 2, Addison Gardens, South Kensington; A. W. Ray, The Lodge, Brixton; W. S. Ellwood, The Limes, South Norwood; T. M. Morris, 70, Basinghall-street.

GRAFENBERG HOUSE, BARNET, HYDROPATHIC ESTABLISHMENT (Limited).—Capital 25,000*l.*, in 5*l.* shares. To establish a hydropathic house at New Barnet. The subscribers are—Charles Wilson, 29, Falcon square, 20; Alfred S. Paterson, 150, Queen Victoria-street, 20; E. Winsted, Epping, 20; J. Reynolds, 24, Finsbury place, 1; E. Carter, Combmartin, Devon, 5; R. Jervis, 3, Falcon square; J. R Lee, Wood Green, N.

FESTINIOG SLATE COMPANY (Limited).—Capital 100,000*l.*, in 5*l.* shares. To acquire the rights and privileges of the Festiniog Slate Quarrying Company (Limited), in property situate at Rhiwbach and Portmadoc. The subscribers (who take one share each) are—A. Hansard, 8, Argyle-place, Regent street, architect; G. Jarrett, 24, King street, Cheapside, press manufacturer; A. N. Shillingford, General Post Office; H. M. Williams, Inner Temple, barrister; Arthur Dryden, Lincoln's Inn, law student; F. O. Lewis, Ashford Lodge, Putney, surveyor; F. V. Rainford, 124, Camden-street, accountant; J. H. Oliver, 123, Stamford-street, linen collar manufacturer. The directors are—Messrs. O. Hansard, Griffith, Jarratt, and A. N. Shillingford, the qualification being the holding of shares to the value of 250*l.*

TRADES BANK (Limited).—Capital 100,000*l.*, in 5*l.* shares. To carry on the business of a banking and loan and discount company The subscribers are—J. W. Clements, Hillside, Champion Hill, 5; A. C. Wilkins, Nuneham-terrace, S.E., 5; W. H. Lake, George-street, Mansion House, 5; M. M. A. Cavanagh, 95, Berwick-street, 5; F. Lambert, 40, Londesborough-road, South Hornsey, 5; H. Baldwin, Grove Lodge, Denmark Hill, 5; C. S. Larking, 46, Lewisham New-road, 5.

MALDON PROPERTY PURCHASE COMPANY (Limited).—Capital 20,000*l.*, in 10*l.* shares. To acquire property at Maldon, Essex. The subscribers are—J. G. Sadd, Maldon, 40; Joseph Chandler, High street, Maldon, 20; Alfred Seil, High-street, Maldon, 20; John Smith, Maldon, 20; Alfred Sadd, Maldon, 20; R. N. Smith, Maldon, 20; C. L. Blyth, Heybridge, Essex, 10.

COSMO SOCIETY (Limited).—Capital 20,000*l.*, in 1*l.* shares. To manufacture and sell merchandise, to carry on business as bankers, dealers in land, &c. The subscribers are—A. H. Jesse, 28, Alfred street, Bedford-square, 1; R. M. Grey, 8, Northumberland-street, Strand, 1; T. B. Gilbert, 16, Old Burlington-street, 1; E. A. Montalban, 20, Stanley-crescent, 1; H. H. Hill, Mitre-court, Temple, 1; H. L Woods, Broom-ville, West Dulwich, 1; H. G. R. Curzon, 47, Argyle-road, Kensington, 12,000.

TUNBRIDGE WELLS SUMMER AND WINTER GARDENS COMPANY (Limited).—Capital 12,000*l.*, in 5*l.* shares. The object of this company is explained by its title. The subscribers, all of Tunbridge Wells, are—T. G. Molyneux, W. H. Hodgkin, Thomas Bretin, F. W. Eiers, G. Cheverton, E. Durrant, and W. Brockett.

ROLLING HOOP IRON.—To produce a superior finish and improved quality of hoop iron, and also to save labour in its manufacture, Messrs. JONES and COOK, of Rotherham, fix a pair of rolls at the back of the ordinary set of "strand" or grooved rolls, and revolving in the same direction as the middle and bottom strand rolls, with which they correspond in height. A guide is fixed from the back of the first pair of rolls, and passes between the middle and bottom strand rolls, curving round and upwards to the front or entrance of the top and middle rolls. The rolls of the first pair are speeded to suit the draw of the iron in passing through the top and middle strand rolls, so as to avoid forming a large loop of the iron between the two pairs of rolls. The iron on passing through the first pair of rolls is forced along the guide through the groove underneath the middle strand roll, and following the shape or curve of the guide is directed upwards to the proper groove between the top and middle strand rolls, thus dispensing with the services of a "turnover," and finishing the iron in a much hotter state than is possible by the present slower process.

THE INUNDATED COLLIERY.

The Lord Mayor has received from Mr. T. E. Wales, her Majesty's Inspector of Mines in Wales, an official statement of the different plans which were tried to effect the release of the imprisoned men. He states that on Saturday, the 14th, two divers attempted to reach them but failed, owing to the long distance, 260 yards, and the great obstacles met with. Four hours were occupied with that experiment. During the next few days nothing but pumping was pursued. After getting to within a few yards of the men they erected two doors, and applied two air-pumps to compress the air between the doors to the same pressure as that where the men were. That plan also failed, as they could not make the doors sufficiently close. The next idea was to thin the barrier of coal to 5 ft. or 6 ft., and bore three holes through it, with a view of supplying the men with food. Owing to the great pressure of air in the holes they could not pass anything through, so that likewise failed. At that time (about 3 A.M. on Friday) they could converse with the men, who informed them they could not live much longer if not rescued. The engineers and officials knew that the water, which was kept back by the compressed air, was standing from 4 ft. to 5 ft. above the men. Mr. Wales then arranged for a consultation with the engineers, and suggested that the three holes which had been bored through and plugged should then be opened out, and the air allowed to escape from the imprisoned men till it was reduced to the same pressure as the air with them. He pointed out that, of course, as the air discharged the water would rise, and if the men were not extricated in sufficient time they would be drowned. On the other hand, they knew they could not pump the water out for some two or three days, and the men had told them they could not live much longer. There being a considerable portion of the mine filled with the compressed air he thought the water would not rise very quickly.

After considerable discussion it was determined to carry out the plan he suggested as being the only possible way of recovering the men alive. Up to that time the compressed air had kept the water back to a distance of about 35 yards from the men. As soon as they opened the holes and allowed the air to escape the water began to rise, and the men told them that they would soon be drowned. The engineers kept asking them if the water was still rising, and the reply invariably was "Yes." The air being sufficiently relieved they put the colliers on to cut away the 5 or 6 ft. of coal, which took about two hours to accomplish. During the whole of that time the imprisoned men continued to call to them in the most pitiful tones that they would soon be drowned, and they also tried to stop up the holes. At last, however, when the water had risen to within a few inches of their mouths it ceased to rise. That was the most exciting moment of all. They then told them they were quite safe, and would be relieved in a short time, and asked if they would have food sent through the hole, or wait until they were relieved. They replied that they would wait, as they could live a little longer. That was a brief history of the way in which the five men were released. In conclusion, he could only add that the conduct of all mining engineers and colliers was far beyond the power of any language to express. He must also refer to the energy Dr. Davies and his able assistants displayed during the whole of the time, and would mention the bravery shown by the two divers from London.

Mr. Alfred Cheney, the London representative of the Troedyrhiw Colliery, had an interview with the Lord Mayor, and personally expressed the deep sense of obligation felt by the company for his Lordship's kind sympathy and active interposition on behalf of the miners concerned in the recent accident at their Tynewydd Pit.

In the House of Commons, on Thursday, Lord Lindsay asked the Secretary of State for the Home Department whether he would instruct the Inspector of Mines, Mr. Wales, to make a special report of the causes of the flooding of the Tynewydd Colliery, stating, so far as possible, what was the head of water, the length of road cut for the liberation of the miners, the height and width of the roadway, and whether he could ascertain from the medical men or otherwise what physical effects were produced on the system of these men by the compressed air in which they were confined. Mr. Cross said he had given directions that enquiries should be made on all those points.

THE PATENT BILL.

Although Mr. Macfie is not at all times so clear as could be desired, there is little doubt that, on the whole, he is desirous that the inventor should be secured a fair and ample remuneration for his ingenuity. All Mr. Macfie desires is that a manufacturer's right of user of an invention should not be interfered with, and it is very questionable whether, provived the inventor be guaranteed a fixed royalty, however small, from every user of his invention, being at the same time compelled to permit its use at that fixed price (just as the Postmaster-General is compelled to carry a 1-oz. letter between any two points of the kingdom for a penny), not only would inventors as a class be better remunerated, but the apparent antagonism between manufacturers and inventors would entirely cease, and both invention and the application of inventions would take their places among the most profitable classes of enterprise in the country, the number of patents taken annually would increase threefold, and inventors would prosper instead of dragging on a miserable existence, and ultimately almost dying of starvation.

The valuable series of extracts—extracts which will be invaluable in connection with the discussion of the present Bill—with which Mr. Macfie has favoured us, appears to be an early proof, as there is neither title page nor preface, but it may be assumed that it will, like his other books, be published through Messrs. Longmans. As he gives both the workmen's and the investors' side of the question, as well as that of the manufacturer, he cannot be charged with partiality, and it may be noticed that the only system which can ensure community of interests between manufacturers and inventors —that of compulsory licenses at a fixed royalty settled by Act of Parliament—is duly referred to, for he extracts from the *Mining Journal* the report of the instructive discussion which took place some years ago at the Inventors' Institute on the valuable and interesting paper on the subject by Mr. George H. Cole, in which he advocated a royalty to inventors of 2 per cent. to be fixed by law. Mr. F. W. Campin (the Chairman of the meeting), a barrister long connected with patent business, agreed with the principle of compulsory licenses, but considered 2 per cent. preposterously low. Mr. Bell Galloway, an inventor, also wanted more than 2 per cent., but a visitor pointed out that as the 2 per cent. would be accruing to the inventor from a dozen different classes of users the inventor would in the aggregate be very amply remunerated. Mr. Savage (of the Workmen's Exhibition of 1870), a working representative of the working man, adopted the same view, declaring the compulsory license acceptable to the workman with the ingenuity to improve upon a patented invention and calculated to benefit the inventor. Mr. Cole contended for the fixed royalty, and that the smaller that royalty the greater would be its money value to the inventor. Mr. Savage believed that with the 2 per cent. royalty system in force any useful invention would be quickly introduced, and that 2 per cent. would be quite enough for a maker to pay, as he might have the same percentage to pay to three or four distinct inventors, so that in all 6 or 8 per cent. or more would be paid by him to inventors. Mr. Macfie's pamphlet is full of information on the question of inventors' rights, and is entitled to the utmost and most careful consideration.

THE MINING MARKET, with all others, has been depressed; but hopes are entertained that we shall soon have a better price for metals. The war, now unhappily commenced, must have a beneficial influence upon mining industry. Great caution has, however, been exercised by the managers of mines because of the depressed state of trade; this policy has been very commendable, and probably those companies which have recently sold the largest quantities of tin instead of storing it will have least cause for congratulation. All facts point to the conclusion that a judicious selection of mines for investment should now be made. Confidence in foreign stocks has given way to wild panic and wide-spread suspicion. This is healthy for home industry.—JOHN B. REYNOLDS: Bishopsgate street Within, London.

THE STANNARIES.

TO THE EDITOR OF THE MINING JOURNAL.

SIR,—Half the distress existing among Cornish miners at the present moment may be traced primarily to the harsh and unrelenting action of the Stannaries Court. Mine investors now eschew everything but limited liability; and seem to prefer anything, and anywhere, to Cornwall.

And the Court of Stannaries, or those around it—and I mention the circumstance that it may meet the eye of the Vice-Warden—have lately invented a new torment. Cost-book mining companies, when making calls, have been accustomed to allow a discount for prompt payment of calls, and a day has been generally named for the payment. Still, secretaries and officials have never been particular to the *very day* named, if shareholders paid *promptly*, and deducted the discount.

In a mine now being wound up in the Stannaries, that Court has gone back into the accounts for several years past, and, whenever discount was deducted after the *day* named for payment, has applied to the shareholders for it.

For instance (say) that I held 50 shares in the mine in 1870, that there was a call made payable on a certain day of 1*s.* per share (2*l.* 10*s*), and a discount of 5 per cent. (2*s.* 6*d*) allowed for prompt payment. Say, I paid it a week after the day named, and *my deduction was allowed passed in the accounts at the next meeting of shareholders;* I am now, after seven years, called upon to pay the 2*s.* 6*d.* because it is *assumed* that the discount was only to be allowed to those who paid on the *very day named.*

No doubt this "discovery of the Stannaries" will entail the writing of some hundreds of letters, and I would ask the Vice-Warden —nay, I put it to him *point blank*—What is charged for each letter, and how much will the company under liquidation really benefit by this before unheard of and harsh proceeding? A VICTIM.

P.S.—United action should be taken to resist it.

[For remainder of Original Correspondence see this day's Supplement.]

NEW EXPLOSIVE EOR MINERS.

In that special class of explosive compounds formed by mixing nitroglycerine with various gas-producing solid substances it is usual, in order to promote a rapid decomposition of the entire compound, to reduce the solid substances used to a state of comminution, and to mix them intimately with each other and with the nitroglycerine. The object of the invention of Mr. EGBERT JUDSON, of San Francisco, is to convert these absorbent and deliquescent gas-producing substances into comparatively non-absorbent and non-deliquescent particles before adding the nitroglycerine, so that the particles will not only be measurably prevented from absorbing moisture to the detriment of the compound, but will also be rendered incapable of absorbing to any great extent the nitroglycerine which is subsequently added to render the compound explosive. His explosive compound will then consist of grains or particles of a gas-producing substance sealed or enclosed in a combustible non-absorbent substance, while the non-absorbent exterior or surfaces of each particle will be covered, coated, or surrounded with a thin film of nitroglycerine. The very small quantity of nitroglycerine which is required by this invention to render these non-absorbent particles explosive enables him to cheapen the cost of producing the compound, and also greatly reduces the danger of accidental explosion.

The mode by which he accomplishes this object is to varnish, cement, or coat, the grains of nitrate of the dry mixture, and also if necessary the carbon or any other part that may be porous or absorbent, with a varnish or cement composed of combustible substances that will liquify by heat, or some highly volatile solvent, which varnish or cement he can make from certain substances that ordinarily form parts of the dry mixture itself. If the dry mixture or such part of it as is to receive the varnish or cement be extremely fine or pulverulent this operation of varnishing or cementing will granulate it into grains of a suitable size for powder by cementing the finer particles together, but if it be coarser its grains or particles will simply receive the coating or varnishing required by his invention. After the dry mixture has been treated and prepared according to my invention it will be found that its grains thus coated, varnished, cemented, or smeared will receive and retain the nitroglycerine upon their surfaces, or mainly upon their surfaces, with little or no absorption, thus enabling a very small proportion of nitro-glycerine to maintain its continuity throughout the mass, and thereby render the whole explosive; and, furthur, will be measurably protected from dampness.

The dry mixtures of the particular class of explosives in question generally contain, in addition to a large proportion of some one of the nitrates, carbon and one or more of the hydrocarbon resinous or bituminous substances, and in addition sulphur is frequently used. Of the first three ingredients mentioned there was under each designation respectively a large number of substances that may be substituted one for the other, thus allowing variations to an almost unlimited extent. In effect, however, all will accomplish the same purpose in a varying degree, and all may be used in connection with his invention.

Cheapness and efficiency combined will determine which substances shall be used, and he consequently illustrates his invention by stating one of the many formulas which will produce a superior explosive compound, confining himself to the cheap and ordinary ingredients of a dry mixture. Take by weight—Sulphur, 15 parts; resin, 3 parts; asphalt, 2 parts; nitrate of soda, 70 parts; and anthracite coal, 10 parts. Let the sulphur, resin, and asphalt be melted together, and well stirred. Into this mixture while melted the nitrate of soda and the coal, both pulverised and thoroughly dried, are to be mixed and well stirred until thoroughly varnished, cemented, or coated by the melted mixture, care being used that the degree of heat be not sufficient to create danger of firing the mass. It is better that both nitrate and coal should be hot when introduced. The entire mixture should thereafter be gently but constantly stirred until cool, so that the grains cease to adhere to each other. The dry mixture is then complete and ready to receive the nitroglycerine, which may be added as desired: 1, 2, or 3 per cent. of nitroglycerine will now convert the compound into a powerful explosive; or the proportion may be increased at pleasure up to 15 per cent. or even more.

The statement is only one of a large number of formulas that he might give, to all of which his invention would equally apply; in fact, it will be readily seen that the variations in the substances employed, and in the manner of preparing them, may be made almost numberless; but with all variations his invention demands one thing —that the drains or particles of the dry mixture shall be coated, cemented, varnished, or smeared with some combustible substance offering resistence to absorption of nitroglycerine and of water, and at the same time it must be capable of bearing any ordinary degree of heat to which the resulting compound may be exposed in transporting or keeping. He has found that many resinous gums and various bituminous substances may be used for the varnish or cement herein mentioned, but most of them are objectionable on account of high cost or otherwise. Sulphur alone may be used, and will form a very good varnish or cement, or on the other hand it may be omitted entirely. Some very volatile varnishes might be applied cold to the dry mixture or certain of its parts, and would answer the purpose he has sought to a greater or less extent.

The ingredients which form the coating, varnish, or cement may be applied without first melting them. To do this he first grinds each of the material of the dry mixture; then leaving out the carbon he mixes all the others together and proceeds to heat them well, all the time stirring, and continues until the whole is thoroughly varnished, cemented, or coated. While the mixture is cooling the stirring must be carefully continued until the grains cease to adhere to each other; then add the pulverised carbon, which must be perfectly dry, mix well, and afterwards put in the nitroglycerine. When carbon is used that is not porous or absorbent it is not necessary that it should be varnished, cemented, or coated. In that case it

may only be necessary to varnish, cement, or coat the nitrate of the mixture. The aggregation of the small or dust-like particles of the dry mixture into grains of suitable size to form a powder, which results from the cementing process, is a very material part of his invention, as it renders the grains more irregular in form, and facilitates the decomposition of the mass. While, as before stated, the dry mixture may not be entirely non-absorbent after it has been treated by his varnishing, cementing, or coating process it is sufficiently so to mainly counteract the absorption of the nitroglycerine, as well as to check the tendency to deliquesence; he, therefore, terms the treated dry mixture non-absorbent in contra-distinction to such absorbent mixtures as have heretofore been used in this class of powder.

Meetings of Public Companies.

GENERAL MINING ASSOCIATION.

The ordinary half-yearly general meeting of proprietors was held at the offices of the company, New Broad-street, yesterday,

Lieut.-Colonel E. W. SCOVELL in the chair.

Mr. C. G. SWANN (the secretary) having read the notice convening the meeting, the reports and accounts were taken as read.

The CHAIRMAN said he was sorry to see so small an attendance of proprietors, because it was an evidence that the interest in the company was waning; but circumstances might in a measure account for the smallness of the attendance at the half-yearly spring meetings. Whatever there was to say upon the accounts, or whatever explanations the shareholders might require, had, generally speaking, already been explained at the previous autumnal half-yearly general meeting The autumnal meetings being held in November, the information for the greater part—in fact, for almost the whole—of the year's active operations was given at those meetings, so that at the spring meetings there remained little to do besides laying before the shareholders the accounts of the results already foreshadowed at the previous meeting. On this occasion particularly he might say that the wind had been taken out of his sails by the very full and clear statement made in his unavoidable absence from the last meeting by his colleague—Mr. Jones—who explained fully what had been the nature of the previous six months' proceedings, and a printed report of which had been circulated amongst the shareholders. This circumstance, probably, in a great measure accounted for the want of interest shown by the shareholders on the present occasion, for the period intervening between that meeting and the close of the season at the end of December comprised the greater portion of their slack season, and there was, therefore, very little to add to the information with which the shareholders had already been furnished. Mr. Jones had at the same time clearly laid before the shareholders the general slackness of trade, not only in the American coal trade, but in the trade of the whole world. The shareholders were, doubtless equally conversant with the state of trade with himself, and were also equally aware of its causes. The results financially, owing to this cause, had been naturally unsatisfactory. Mr. Jones had at the same time informed the shareholders of the unfortunate strike at the Sydney mines during the best portion of the shipping season, and had read extracts from the manager's diary showing how the strike had operated, what exertions were made to suppress it, and the little assistance which the company had from the civil power; and it would, therefore, be unnecessary to detain the shareholders with any recapitulation of these facts, and it only remained for him to refer briefly to the accounts before moving the adoption of the report and accounts, and to state that he would be happy to answer any question which any shareholder might desire to put. Amongst the subjects mentioned in the report the shareholders would have noticed that the agreement between the company and Mr. Rutherford, as general manager, had terminated by the efflux of time. He felt sure that the shareholders would not be surprised that the directors had not seen fit to continue this additional member of the staff in the present state of trade. (Hear, hear.) He hoped and believed that they would be able to manage, with the assistance of the managers who remained, in keeping up their communication with the mines, and by frequent reports to see that matters were carried on quite as well as hitherto. Mr. Rutherford had not, as might have been expected, sent his final report with respect to the operations at the collieries during the past year; but the directors were informed that the mines were in good order, and that the necessary repairs consequent upon the unfortunate strike had been effected. The expense of these repairs was directly about 600*l.*; but indirectly there had been a great loss, not only in consequence of the cessation of work during the time the strike lasted, but also by the loss of the command of the market, which other collieries were only too glad to be able to take advantage of. Although they had in some measure overtaken the decrease in the amount of sales during the year, yet at the close of the year they were considerably behind their usual average.

A SHAREHOLDER asked if, in the opinion of the board, the staff remaining after the departure of Mr. Rutherford would be sufficient to work the mine properly?

The CHAIRMAN replied in the affirmative, adding that Mr. Rutherford was appointed as general manager, when the company was working under rather different circumstances. The company then possessed the Albion Mines in addition to those already worked by them, but under the present circumstances he thought their staff would be quite sufficient to maange the mine efficiently.

Mr. GEORGE SCOVELL asked upon what authority the board stated in their report that they had every reason to be satisfied that the collieries were being properly managed and maintained in good order, when, as the Chairman had stated, no report had been received from Mr. Rutherford as to the condition of the mines at the present time?

The CHAIRMAN, in reply, said that Mr. Brown, the manager who remained upon the property, of course reported upon the collieries, and it was from this source that the directors obtained their informaton.

Mr. SCOVELL complained that the agents in Nova Scota were too highly paid, and asked what they did for their salary of 800*l.* a year? He would ask whether they were paid by salary only, or by a fixed percentage. If this company paid them by salary, and the other company, for which they are agents, by commission, it was only natural that they would look after the interests of the latter company. He would also ask—and he intended his questions, and any remarks he might make, not in any hostile spirit to the board, but only for the sake of eliciting information—whether any of the directors had been out to the collieries to see that the excellent recommendations made by Mr. Swann (the secretary), after his visit two years ago, had been carried out? He thought they should have directors who would go out to its collieries to see to the management, for they could not be expected to manage affairs sitting at home If this could not be arranged, some plan should be adopted whereby the directors would have a more direct control over those employed by the company in Nova Scotia. Certainly, somebody should go out and see to affairs at least once in two years. Mr. Scovell then stated his ideas with respect to the carrying out of his views as to more direct communication between the shareholders and those engaged by the company to conduct the affairs at the collieries.

Mr. J. C. RUDING endorsed Mr. Scovell's recommendations, and called attention to the matter of an amount of 5900 tons of small coal which had for years been considered as an available asset, but which, on the visit of Mr. Swann, was discovered to have been wrongly considered year after year. He thought there had been a great neglect of duty in this matter; and that it was a matter for which the managers, or whoever were to blame, should be censured.

The CHAIRMAN, after stating that the board quite accepted the remarks made by the shareholders, who had spoken in the spirit in which they were made, said, unfortunately, during the past few years the company had sustained quite exceptional losses. Until the company sold the Albion Mines the Sydney Mines were making a very fair profit, and for one year after the sale the Sydney Mines did very well, and a dividend was paid to the shareholders. Since that time the mines had been flooded for two years, and consequently the output was suspended, and last year a very serious strike had been experienced at Sydney. There could be no doubt that under ordinary circumstances the mines ought to pay well. With regard to the addition to the new works to which Mr. Ruding had referred, the 6000*l.* added this year was not altogether an additional outlay during the year, as it was made up in part of a transfer of the account for all the materials and stores used during last year, chiefly consisting of iron for tubbing and iron rails. With respect to the amount of 5900 tons of small coal which had for years been regarded as an asset, no doubt it was a great oversight on the part of the management at the collieries, but the mistake commenced many years ago, long before the present manager came into office. It arose from the fact that the small coal was many years ago heaped up upon ground which did not belong to the company, and as the ground had to be surrendered, the manager at that time—Mr. Richard Brown—not being able then to sell Lingan slack, threw it down a pit, and it was a great pity that the item had not been written off at the time. However, it was not, and Mr. Routledge, who was manager before the present directors came into office, used some of the coal to repair a railroad, still calculating it as an available asset, and the present manager, Mr. Brown, had followed the same course until discovered. No doubt Mr. Brown was guilty of an error of judgment in treating this coal as an asset, following the lead of his predecessors; but he should not be unconditionally condemned for it, for he thought Mr. Brown an excellent manager, and he had shown great tact and courage in dealing with the unfortunate strike last year. Blame was undoubtedly due to Mr. Rutherford, who was some years ago engaged to make a re valuation of the company's properties, and did not make any mention of the matter. With regard to the directors going out to the collieries, it would be very desirable that one of them should do so occasionally. A few years ago he had offered to go, but as at that time the negociations for the sale of the Albion property were in progress, it was thought desirable that he should stay in London. The board had not lost sight of the matter, and as the engagement of Mr. Rutherford had ceased, they contemplated sending out to the collieries one of their number, or Mr. Swann, their secretary, who was quite as competent as any of the directors to undertake such a duty. Mr. Swann would probably make another visit to the mines this year, with full authority from the board to look into all matters, for the directors had every confidence in Mr. Swann's ability and energy. With respect to their agents they were paid by salary only, and he was informed that their arrangement with the Albion Company was similar to their arrangement with this company. He believed that a payment by commission would not be a saving to the company. They were in hopes of bringing the new work to a close this year unless some unforeseen accident should occur. The shareholders were aware how much the directors had been disappointed by the delays in the progress of these works, many of which were begun ten years ago. It had been absolutely necessary to go on with them, or else shut up the mine.

On the motion of the CHAIRMAN, the report and accounts were adopted.

The retiring directors, Lieut.-Col. E. W. Scovell and Mr. A. Janes, and the retiring auditor, Mr. C. Q. Nicholls, were re-elected.

The meeting closed with a vote of thanks to the Chairman and directors.

COMBMARTIN SILVER-LEAD MINING COMPANY.

At the meeting of shareholders in Combmartin Mine, held yesterday (Friday)—Mr. THOMAS, of Exeter, in the chair—the accounts, showing a balance of liabilities over assets to March 24 of 99*l.* 4s. 4d., were submitted and passed, and a call of 1s. per share (300*l.*) made. The agent's report was of a very satisfactory character, Harris's shaft has been cleared, timbered, and secured to the 38 fm. level, and the lodes as far as opened upon have far exceeded expectation. There are now two ends in rich silver-lead ore, and these will be continued, and pitches set as the ground is opened. The agent, before the next quarterly meeting, expects to sell 10 tons of rich silver-lead ore, and the costs are very light, as no machinery is required. The meeting passed off in a very satisfactory manner, the shareholders present fully expecting to have a dividend property very shortly. From some old documents produced at the meeting, it was shown that in the old working, in 1843, the silver-lead in that year realised 10602*l.* 13s. 10d., and dividends of 2*l.* per share were paid. The mine was then worked by very expensive machinery. The present grant, which is a very extensive one, and may hereafter be subdivided, is held under lease from Sir Charles Watson, Bart., at 1-18th royalty.

WEST TOLGUS MINING COMPANY.

At the two-monthly meeting of adventurers, held at the mine on Wednesday,—Mr. S. TAYLOR in the chair, the accounts showed that the copper ore sold on Jan. 4 and Feb. 1 realised 3049*l.*, after deducting lords' dues. The expenditure side showed that the labour costs on March 2 amounted to 739*l.*, and on March 31 to 761*l.*; and the merchants' bills to 1217*l.* This, added to the 100*l.* charged on account of the 13th month, showed a total expenditure of 2818*l.* Besides the above sales of copper ore have been sold during March and April, which fetched over 3600*l.*, and 250 tons of copper ore will be sold next week. The agent's report said:—

Taylor's engine-shaft is being sunk below the 135 in killas by 12 men, at 35*l.* per fathom; there remains about 2¼ fms. to sink to reach the 145; this we hope to accomplish in about two months. The lode in the 135 east is about 2 ft. wide, yielding 1¼ ton of ore per fm.; driving by four men, at 6*l.* per fathom. The lode in the 135 west is 6 ft. wide, yielding 6 tons of ore per fathom; this end is within 6 ft. of No. 4 winze below the 125, in which the lode is both larger and richer, and driving by six men at 6*l.* per fathom. The stope in the back of the 135, west of shaft, east of No. 1 winze, will yield 3 tons of ore per fathom; worth 18*l.* per fm., stoping by six men, at 5*l.* per fm. The stope in this level, east of No. 2 winze, will yield 7 tons of ore, worth 12*l.* per fm.; stoping by six men, at 3*l.* 3s. per fm. The east stope in back of No. 3 winze will yield 20 tons of ore per fm.; worth 140*l.* per fm.; stoping by nine men, at 5*l.* per fm.; the lode averages about 5 ft. The level in No. 4 winze below the 125, west of shaft, is 8 ft. wide, yielding 8 tons per fm.; sinking by six men, at 7*l.* per fm.; the winze is down 9¼ fms.; we calculate communicating the 135 end this week. The rise in the back of the 125 west has been holed to the 115. We shall now resume driving the 125 west of the lode, which is 3½ ft. wide, and will yield 3½ tons of ore per fathom. The stope in the back of the 115, west of shaft and east of Michell's rise, will yield 3 tons of ore, worth 18*l.* per fathom; stoping by six men, at 2*l.* 10s. per fathom. Richards's shaft is completed to the 95, and the shaftmen are employed in cutting plats at this level. The stope in the back of the 85, west of shaft, will yield 3 tons of ore, worth 18*l.* per fathom; stoping by four men, at 5*l.* per fathom. The 75 west is being driven north, with a view of proving if there is any more lode in that direction, as what we have been driving in is disordered ground, with strings of spar and mundic; driving by four men, at 9*l.* per fathom. The lode in the 65 west is small and poor; driving by two men, at 8*l.* per fathom.

The CHAIRMAN remarked that the report was a very satisfactory one, and it was equally pleasing that the mine was in such a satisfactory condition. In the account they presented to-day they still felt that the effects of the struggle they had to encounter in the winter months, when they had a good deal of trouble in consequence of the water getting into the mine, and which kept them out of their returns from the bottom part of the mina, and which had, of course, deprived them of some of their profits. The dividend they proposed to-day, however, was the same as before. They were, happily, able to keep up their dividends from their having prudently laid by a reserve fund when they were making larger profits, but the reserve fund was now reduced, and his hope was that by the same prudent conduct as had been shown in the past this reserve would be raised again.

[For remainder of Meetings see to-day's Supplement.]

THE WEEK.

SATURDAY, APRIL 21.—Operators for a fall showing no disposition to close the markets lost the support that sustained them during the early part of the weeks, and closed rather flat; mining shares were, however, exceptionally firm, and in several instances a good rise took place, notably in the case of Assheton, Great Laxey, Flagstaff, and Richmond. Consols gave way 3-16ths, to 95⅛, the Government broker apparently having no further business in them for the present. Egyptians were very dull, the Preference fell to 51¾, and the Unified to 32. Russian of 1873 closed at 75. "Little Turks" were 8⅝ to 8⅞. The report of the Odessa Waterworks Company shows a net profit of 9081*l.*, and the directors recommend a dividend of 1½ per cent. on the A shares. The company was established in 1872, and this is the first dividend. The A shares (20*l.* pain) are nominally 3 to 5, but in 1874 were as high as 25. The report states that while excellent water continues to be abundantly supplied to the Imperial troops the company can obtain no recognition whatever of its clams. In a former article, when commenting on another English company similarly situated, I drew attention to the way in which "Holy Russia" sees fit to treat foreign capitalists.

MONDAY.—Prices fell further to-day, war in the East being now considered imminent. Caledonian stock was sold a good deal, and lost the whole of the week's recovery in a very few hours, declining 1⅝, to 1 5¼, 116. Dover, A, fell 1¼, to 110¾; Great Eastern 1, to 48¼; Brighton, A, 1, to 102¾; and Berwick ⅜, to 153¼. All foreign bonds suffered more or less, the closing price of Russian, 1873, was 74½ to 75; and of Egyptian preferred, 50⅞ to 51⅛. French Fives fell to 103, and Turkish Fives to 8⅛. Mining shares remained steady, Assheton was dealt in at 1⅝, Flagstaff at 3 1-16th, Richmond at 6¼, and Exchequer at 1⅝. Pennerley were quoted 9s. to 11s., and Rookhope, 17s. to 19s.

TUESDAY.—At one time a semi-panic prevailed to-day. Russian at the commencement was quoted 72 to 72½, and closed no better than 72¼ to 73. Turkish Fives declined to 7¾, 8. There was a little recovery from the worst before the day finished, because to-morrow being continuation day the low prices prevailing tempted a few to close. Brighton A and Caledonian were again flat markets, both giving way 1*l.*, to 101½ and 114¾ respectively. Hungarian Six per Cent. of 1873, once so buoyant, closed 74 to 74½—3*l.* lower on the day, and 7*l.* worse on the week. The shares of the General Credit Company fell again 2s. 6d., as they have been daily doing for a week, closing 5¾ to 5⅞. Royal Aquarium was done at 2⅛, National Safe at 2½, Odessa Waterworks, A, at 4, and Hudson's Bay at 13½. Mining shares slightly weaker, Flagstaff being 2¾ to 2⅞; Richmond, 6¼ to 6⅜; Wheal Crebor, 2 to 2½; and East Van, 5¼ to 5½.

WEDNESDAY.—A further heavy drop took place in Russian Bonds. The 1873 Loan made up at 71, but the closing price was not better than 68¼. The 1870 issue fell as much as 5*l.*, and that of 1872 also fell 4*l.* 10s. Egyptian preferred declined to 48½, and the Unified to 30. Turkish Fives were 7⅛ to 7¾. Portuguese, 50½ to 51; and Italian 1861, 62½ to 62¾. There was a backwardation on Berwick, Midland, and Birmingham Railways, which did not, however, prevent a serious fall taking place. The fall in Midland (123¾ to 124) was 1¼, and in Berwick (150½), 2*l.* Dover, A, 107¾ to 108. Brighton, A, 99¾ to 100. Great Eastern, 44⅝ to 44⅞. District, 41½ to 41¾. Chatham Ordinary, 19 to 19¼. One or two mining shares gave way. Parys Mountain, 7s. to 7s. 6d. North Laxey, 12s. to 14s. Pennerley, 7s. 6d. to 10s. Glenroy, 1¼ to 1¼. East Van, 5 to 5½. West Tankerville, 1½ to 1¾. One small failure was reported—that of a jobber in the miscellaneous market.

THURSDAY.—The making-up prices for this account compared with April 10 show many startling changes, and necessarily cause some apprehensions as to the differences being met in some quarters. As before mentioned Russian of 1873 made up at 71 (to-day at 70½); last account the figure was 83¾. The 1872 Loan was then continued at 81½, now at 69, while the 1870 issue from 87 found this time its level at 72. The same fall—15*l.*—occurred in Hungarian Six per Cent., 1873, the price on April 10 being 88¼ against 73½. The change in Egyptians of 1873 was from 50½ to 42½; in Turkish of 1871 from 28¼ to 20¾, and in the Fives from 11½ to 7¾. French Fives—for them a very serious fall—have gone from 107¾ to 101¼. In railways the greatest collapse has been in Caledonian; they were continued at last account at 122, and the time at 113½; Dover, A, then 115, now 108; Brighton, A, 106¾, now 100; North-Eastern, 155¼, and now this day 150, but 151½ yesterday. Great Eastern from 50¼ have gone to 45.

FRIDAY (opening).—The markets are very weak for railways, but Russians are firm at 70. Midland, 123¾ to 123⅝; Caledonian, 113¼ to 113⅛; Great Eastern, 44¾ to 45.——*Two o'clock.*—Railways are further down; Chatham ordinary are now but 18½ to 18¾, and Brighton, A, 97½ to 98. Consols are 94⅛; New and Reduced, 93¼. India stocks are dull.——*Four o'clock.*—The settlement has been concluded satisfactorily, without any default. Railways are lower. Great Western, 97½ to 97¾; Caledonian, 113¼ to 113; Midland, 122½ to 122¾; Eberhardt, 7¾ to 8⅛; Richmond, 6 to 6¼; Flagstaff, 2¼ to 2¼. Russian, 69½ to 70; 4s Russians are now quoted 70½ to 70¾.

FERDINAND R. KIRK.

Birchin lane, April 27.

CAPITAL, AND ITS EMPLOYMENT.

Now that hostilities have actually commenced between Turkey and Russia, and that the blood which has been so eagerly thirsted for by each of these powerful belligerents has been already tasted, it would be indeed curious if the various stock markets of Europe were not wildly excited. The great gambling element, which forms so great a portion of the business transacted, has not been unready to take advantage of the universal bewilderment, and to profit by the dilemma. In thus operating prices have been forced down day after day, and timid holders of stocks—ignorant, perhaps, that the selling was purely speculative—have been induced to part with good securities at a loss, and thus unwittingly added to the general decline. My readers will bear witness that I have been no advocate for the purchasing or holding of foreign bonds, and some six months ago I went out of my way to strongly urge the sale of Russians, pointing out that their immense and deadly bought indebtedness must of itself be sufficient to cause a collapse. How much further this will be aggravated with an expensive war on hand may be readily imagined. When I speak, therefore, of undue depreciation I may be readily understood not to include within the category most of those foreign bonds which have so steadily fallen, but to allude to the serious depreciation in home securities, for which there has been little or no reason.

It is said in the market that "a panic is a jobber's harvest," and I never could see why it should not also be a harvest for the investor, for a better opportunity for the employment of capital rarely exists than is to be found in such times. Take, for instance, railways—with the exception of Caledonian, North British, and one or two others essentially speculative stocks—what possible reason can there be for a heavy drop in others, such as Midlands, North-Westerns, Great Northerns, or even North-Easterns? Then, again, what possible connection can there be between an Eastern war and the London General Omnibus, North Metropolitan Trams, or Anglo-American Telegraphs that they should partake in the decline? I, therefore, urge my readers who study the maxim embodied in the heading of this communication to take the opportunity of purchasing non-effected stocks which are now brought to a level which must prove remunerative.

Lead Mining is a branch of enterprise which should, and certainly will, command considerably more attention. Should the war attain any magnitude—of which, unhappily, there is little doubt—the price of metals will considerably advance, and lead particularly so, a result which will be eminently gratifying to shareholders in good concerns. I consider the present an admirable time for the purchase of shares, this market being extremely depressed. I would counsel, however, the selection of those mines alone which are at the present raising and selling lead, as they will naturally be the only direct recipients of the benefits conferred by higher prices.

Looking at the state of the market quotations, I should select Leadhills, Pennant (both in the Dividend List, as I predicted three months ago), Assheton, West Assheton, North Laxey, and Pandora, all of which, I feel certain, will in a very short time yield to their shareholders very substantial returns. There are many others whose claims should not be ignored; space, however, will not permit of my entering upon their merits, but I shall be happy to enter into the subject fully with those who may favour me with their address.

ALFRED E. COOKE.

Old Broad-street, London, E.C., April 27.

FOREIGN MINES.

ST. JOHN DEL REY.—Telegram from Morro Velho, dated Rio de Janeiro, April 21, and Morro Velho, April 16: Profit for the month of March, 510*l.* All going on well.

DON PEDRO.—Capt. Vivian, March 24: Mine: No. 8 Shoot: I regret to state that this shoot has become somewhat disordered, caused by a fissure in the lode, and in consequence the ore is at present of a lower standard; there is no doubt, however, that by extending operations eastward and getting through the disordered ground the lode will again make good. Of course it will take some little time, as fissures generally cause the ground to become troublesome to excavate. Since May last we have stoped this shoot 10 fms. on the line of dip, and it is satisfactory to state that the whole length was found very productive, therefore leaves every hope of similar results being obtained after we get clear of the influence of the fissure; and in accomplishing this I scarcely need state that no time will be lost. As far as I can judge at present the fissure has not caused the lode to be heaved as was the case in the No. 1 stope; this, however, cannot be entirely proved until we get to the east of the said fissure. No change calls for special remark in any other part of the mine.

— Letter from Mine Captain, March 24: The ores extracted have been derived from the No. 5, No. 6, and No. 8 shoots. General work is of a low quality. No boxwork available.—Stoping: No. 5 Shoot: The No. 2 stope is suspended, and our incline rise commenced on the lode westward towards the No. 3 stope; this rise will be pushed on with all speed for ventilation for the said stope.—No. 6 Shoot: No improvement has taken place; the lode still remains poor. On the 21st another stope was started north of the western stopes.—No. 8 Shoot: A great change has taken place in the No. 3 and No. 4 stopes in consequence of a large fissure which has disturbed the lode. General work from these said stopes is low in quality. In the No. 5 stope the lode is split, and not so good in quality as it was formerly. The lode still continues to go flat towards the No. 6 shoot.—Drainage: Water drawn from the mine still amounts to 22·50 cubic feet per minute. The reopening of the incline shaft being continued. On the 19th two cutters belonging to toe-pin at Dawson's wheel parted, but having others ready the hindrance was only a few minutes. On the 22nd we changed one iron rod at surface wheel, title one hour and fifteen minutes, water rose to 1 ft. in 35 fm. plat. At 7 P.M. changed bucket of 8 in. lift—water rose to 13 in. in 35 fm. plat in consequence. No. 8 shoot was suspended five hours, water put in fork under plat on the 23rd at 9 A.M.—Prospective and Running Work: The driving at the 30 fm. cross cut towards the canoa being continued with all speed. The new level from adit is advancing satisfactorily. The timbering of the 30 fm. cross cut being kept on, also Alice's level. Fixed the two cranks and sweep rods at P. P., and all other work connected with this being pushed forward.

— Telegram, Rio, April 23: Produce cleaned up (first division April), 1450 oits.

SANTA BARBARA.—Mr. Hilcke (Pari, March 24) reports that the operations in the mine were proceeding as usual, and that the lode operated on showed no change of moment.

ALMADA AND TIRITO.—Telegram from Mr. Breach: No loss for February or March. Tirito shaft at 54 fms. below tunnel. Cross cutting.

RICHMOND CONSOLIDATED.—Telegram from the mine at Eureka, Nevada: Hall, London—Week's run, 330,600; refinery, 311,000. One apparatus only at work.

— R. Rickard, April 7: There is no alteration in the 900 drift from shaft since my last. Winze below the 800 is down to the level of the 900; a drift has been started from the bottom of the winze towards the 900 from shaft. We resumed work in the 700 drift. At the end we drifted through 15 ft. of limestone, when we struck ore. We have not drifted much into it yet. It is the same ore body we drifted through 100 ft. in the 600 level. A drift has been started from the winze in bottom of the 600, 26 ft. below the 600 level; it is in good ore. There is nothing new in the 400 since my last. In the Lizette tunnel (old workings) we have opened out some very good ore; cannot judge what quantity there is as yet. All other parts of the mine are without alteration. The two stone furnaces are still in good working order, and smelting large quantities of ore.

BLUE TENT.—D. T. Hughes, March 31: We are working diligently and cautiously as usual in both claims, and have a good stream of water in our Blue Tent ditch. We have shifted our position for piping in the Enterprise to better advantage. I think we shall at least get rid of a portion of the trouble mentioned in last week's report, and in all probability will be able to wash more steadily hereafter. In the South Yuba we worked quite successfully during the week, enabling us to wash in considerable bottom gravel within the last few days, and with a favourable prospect for an encouraging clean-up in our next; the ground at present before us looks promising. Within the last few days we have been favoured with a little rain and snow at the head of the ditch, and have some prospects of more rain to come. This timely rain has given us much encouragement, and is likely to prolong our water supply several weeks beyond our expectation, even if not favoured with any more at present.

BIRDSEYE CREEK.—G. S. Powers, April 1: March has passed by without any additional rain more than a few slight showers, which have served only to keep the water in Steep Hollow Ditch up to the standard of the amount mentioned in my last letter I have been forced to close down Red Dog entirely, and shall not attempt to wash further there this season. The washing done in this claim has not proved remunerative this season—first, on account of the light head of water; second, the washing was done from the bottom ground over the west rim rock, and there is evidently but very little gold in the gravel. Had the water supply been average we should have been able to have blasted and worked through this rim, and been in good trim for another season's remunerative washing. That there is a large amount of valuable hydraulic ground a few hundred feet from the present opening I have never for one moment doubted, but as we here could not control the elements it places us but very little in advance of where we stood at the close of the last season as regards this claim. We are at the present time only washing partially at Waloupa, and using what surplus water we have above our regular head for the Neece and West claims. I shall clear up Waloupa claim to morrow, and Neece and West the 4th instant, and will send cable despatch as formerly. In relation to water, should the weather continue cool the Steep Hollow head is likely to keep up to its present standard may be until about June 1, and with occasional showers even will go into June. I expect to buy a head from South Yuba; often the head fails below a supply for Neece and West claim in Birdseye ditch, but even then the South Yuba Company cannot expect to have a heavy fall of snow in this month in the mountains. I will write particulars as to clean-up when through.

I.X.L. (Gold and Silver).—L. Chalmers, March 31: I have in to-day's paper an advertisement for tenders for hauling 25 tons of ore daily from the mine to the mill. The late fall of snow (now, however, almost gone) and severe night frosts make mason work yet impossible. My foreman's report for the week is appended. The new machinery is completed and running splendidly. Everything about it is good and solid, and now ready for moving the pump, the chamber cut out, and foundation laid preparatory for moving, will be ready for sinking as soon as we get the rope and bucket fixed. The north drift is now in 537 ft. from cross-cut on the 200 ft. level in a well defined ledge, 4 ft. of solid quartz in face, apparently medium ore. We have not done much work in the mine this week, on account of the machinery going up. We worked four shifts, and drove 5 ft. in the 200; the said drift is looking well in the face. We baled the water out of the O. K. shaft to the bottom, and found a drift running east 14½ ft. from the bottom, which will do to connect the rise now up to that point from the north drift on the 200 ft. level. We drifted west 7 ft. from rise this week; it is now very nearly through to the O. K. east drift. The Ophir is looking well on the 200 ft. level. Everything in and about the mine is running and working well.

EXCHEQUER (Gold and Silver).—Lewis Chalmers, April 1: I am not yet ready to report on the mill, except that, although the grade of ore is very much lower than I could have anticipated, the mill and furnace run to a charm. Furnace tests not completed. My foreman reports for the week ended Saturday last that the No. 2 stope, in the 100 ft. level, was driven 22 ft. 4 in.; vein 2 ft. of good ore, and 2 ft. mixed with good ore. No. 1 stope, in the 200 ft. level, is driven 27 ft.; vein 2 ft. of good ore, and 1 ft. 7 in. mixed with good ore. The north drift, in the 300, was driven 7 ft.; vein from 2 to 3 ft. wide, poor ore. The north drift, in the 400 ft. level, was driven 6 ft.; vein 2 to 4 ft. wide. The Acacia Tunnel was driven 2 ft. 6 in.: 50 car loads of quartz sent up on top.

— Assay of sample taken from the 140 foot level in the Exchequer Mine: Pro

duce of gold, 5·70 ozs.; produce of silver, 660 ozs. per ton of 20 cwts.—JOHNSON, MATTHEY, AND CO.

ARGENTINE.—Report for February: General Remarks—Force: We have now an ample supply of surface labour. Miners we are still deficient of, but having put an advertisement in the Chili papers I think we shall soon get what we require from that quarter.—Weather: The rains during the month have not interfered with us to any great extent, and there is now every symptom of fine weather having set in.—Fuel for Engines: The mule and donkey troops are steadily increasing in number, and the stock of wood is augmenting, and by the time winter sets in we are likely to be amply supplied with fuel, so as to prevent a recurrence of what took place during the last winter.—Masonry for Calciner: Good progress is being made in building masonry for calciner. Mr. Osland arrived here March 1, and I am very sanguine, from several conversations I have had with him that he will be able to make a most important improvement in the treatment of our ores.—Reduction Department: Bar gold obtained in 24 days' run, from 570 tons of ore partially treated, 161·725 ozs., averaging per ton 5 dwts. 16 grs. The ore treated during the month has been from four different mines—North of Pique, North Pique Shaft, Chairman, and Manager, and has been almost all a soft gossany ore, very easy to stamp, which will account for the large quantity that has been stamped in less time than usual. The stamps have been running, more or less, 24 days, but the actual working time is 18 days 19 hours. They were idle up to the 12th instant on account of our not having water whilst the Piqué pitwork was being fixed, and to make up a little for the lost time we have worked on until March 6, calling the gold all for February. A telegram referring to a later date than the foregoing report has been received, advising that:—"During 20 days of March 5·0 tons were stamped and partially treated, 175 ozs. cleaned up."

Mr. Osland (March 10): I arrived here (Gualilan) on the 1st inst., and in the time spent have seen sufficient to show me the great value of the property, the necessity of improvement in the working details of the present method, and the early addition of other methods to be united for the treatment of the ores.

CONDES OF CHILI.—James Seecombe, March 13: Batters' Shaft; The sinking has not yet been resumed, but will be in a few days. At present the men are engaged in cutting plat at the 36 metre level. Since communicating the 36 metre level to the bottom of the shaft the end has been driven east 5 metres. For the first 3 metres the lode maintained its size and value, but in the end it is not so good; however, from the size of the lode, which is more than "end big," I anticipate it will shortly resume its former value of 70*l.* per fathom. As soon as the plat is completed the drivage west will also be proceeded with. The 18 metre level is full of rich ores from the shaft to eastern end, and in the end the lode is worth 3*l.* per fathom. Westwards, I am still engaged in making good the level through the irregular workings of my predecessors. The shallow adit level has been made good to Batters' shaft, and is now extended 8 metres to the east of it; the lode is very large, carrying 1 metre wide of ores, worth 100*l.* per fathom, and very easy to work. At this level all the stuff is being trammed to the floors direct.—Dawson's Shaft: Before resuming the sinking a plat has to be cut at the 20 metre level. The 20 metre level is driven west 8 metres through a lode averaging 70*l.* per fathom, and is fully of that value in the present end. East the end is extended 4 metres; the lode is large, worth 25*l.* per fathom, and very promising for improvement. In the shallow adit, driving from Seecombe's shaft towards Dawson's, I am pleased to say we have a very good lode, carrying a leader of ores 3 ft. wide, and worth 80*l.* per fathom. This is an important improvement, being in entirely unexplored ground, consequently every fathom of rich lode opened here is adding greatly to the value of the mines. The following telegram, referring to a later date than the foregoing report, was received on April 17, dated Valparaiso, April 16:—"17 tons of regulus and 15 tons of raw ore have been shipped per Aconcagua."

NEW ZEALAND KAPANGA.—J. Thomas, March 10: I beg to give you the details of work during the past four weeks ending March 10. The winze has been sunk under the 50 fm. level diagonally on the course of the lode 7 fathoms, the sinking lift dropped, and the skip road laid to the bottom; the ground has been broken and tedious for working, and had to be well secured. The extent sunk in new ground is 4 fms. 3 ft. The lode continues to average 18 in. to 2 ft. wide, occasionally yielding some very rich gold quartz, specimens of the same class and character as the box of samples I sent you a few months since, and send you a sample specimen of gold quartz by this mail, weighing 10 ozs., which I estimate to contain 2 ozs. of gold, broken from the bottom of the winze to-day. The lode maintains the same soft Peokan, mixed with a quantity of fine auriferous pyrites and rubbly quartz, with occasional branches of gold quartz sticking to the hard face of the hanging-wall; the whole lode is good crushing stuff that will yield with the specimens 1 oz. per ton, and the cut-turn is from 3 to 4 tons per fathom. The water has increased a good deal in sinking, and the lode-stuff has to be very carefully broken down, consequently the sinking progress is rather slower than I anticipated It is very gratifying to say that I have obtained goldstone from every foot we have yet sunk in new ground. No. 5 fm. level has been driven north on the course of the lode 5 fathoms; total length driven 13 fms. 4 ft. The lode here is 18 in. wide, composed of a nice blue flookan, much mixed with gritty quartz and fine black pyrites, all of which are great indications for gold. Last week we met with a few good specimens of gold making against the hanging wall; this is the first visible gold I have seen in driving this end, the lode-stuff is better than it was last month, and I should say it would pay crushing expenses. I will commence to open stopes in the winze and above the No. 5 level the moment there is room for the men to work: the dead sinking and driving work must be done before the ground can be stoped away. The total quantity of stuff accumulated at the stamps for crushing is about 45 tons, and I have 2 lbs. of rich specimens in the safe I estimate will yield 2 ozs. to 1 lb. of stone. I hope to be able to put on a few hands to commence stoping next month, when the yield of specimens and crushing stuff will be increased according to the number of hands that can be employed. The machinery at surface and the water-wheel machinery underground continue to work without interruption.

LUSITANIAN.—April 17: Palhal: In Taylor's engine-shaft, sinking under the 190, the lode still holds good; worth 5 tons of ore per fathom for the length of the shaft—15 feet. The 50 cross cut, north of Perez' shaft, is being continued in hard ground, and so far we have met with no more lode. The rise No. 105 above the 180 is holed; the lode is poor. The winze No. 108 below the 150, west of the slide, is being sunk in a lode worth 1 ton of ore per fathom. The lode in winze No. 106 below the 28, east of River shaft, is worth ¾ ton of ore per fathom. The winze No. 107 below the 180, west of the slide, is turning out 1 ton of ore per fathom. The 190, east of Taylor's shaft, is on a lode 3 ft. wide, composed of quartz and spots of ore. The 190, west of Taylor's shaft, is yielding 3½ tons of ore per fathom. The rise above the 190 is holed. In the 180, west of Taylor's shaft, the lode is very indistinct and poor. In the 170 west the lode has more quartz than formerly, and is spotted with ore. In the 180, west of Taylor's shaft, and west of the slide, the lode is nearly 1 ft. wide of quartz and stones of ore. The lode in the 90, east of River shaft, is 4 ft. wide, composed of quartz, country, lime, and lead, of which it yields ½ ton of ore per fathom; it has been worth 1 ton of ore per fathom. The lode in the 70 east is in two parts and poor. The lode in the 50 east is 4 ft. wide of quartz, with nests of ore in it. In the 28 fm. level east the lode is unproductive.—Carvalhal: In the 60, west of the cross-cut south of incline shaft, the branch has a small vein of quartz, but no mineral to value. The lode in the 30, north of the great lode is from 6 to 8 in. wide, containing good stones of blende and some lead.

LINARES.—April 18: Pozo Ancho: The lode in the 120, east of Santo Tomas engine-shaft, is large and strong, and contains a little ore. The 100, east of Warne's, is disordered by a cross course. In the same level west the lode is very open, and yields ½ ton per fathom. The 105, west of Peill's shaft, produces 1 ton of ore per fathom. The 90, west of the same shaft, has fallen off in value during the past week to 1 ton per fathom. The lode in the 65, in the same direction, is small, and unproductive. In the 105, east of Peill's, the lode is compact and regular, and is worth 1 ton of ore per fathom. The 90, east of San Francis o, is opening up good stoping ground, worth 1½ ton per fathom. The 75, east of this shaft, contains spots of ore, but nothing to value. The 65, in the same direction, is unproductive. The sinking of Peill's shaft below the 105 goes on well. At Santo Tomas shaft the tip and cistern plats are being cut preparatory to sinking below the 120. No. 216 winze, below the 65, yields 1 ton of ore per fathom. Winze No. 217, below the 55, is going down in a moderately productive lode, worth 1 ton per fathom. Winze No. 218, sinking below the 85, also yields 1 ton of ore per fathom.

Quinientos Mine: The 100 fm. level cross cut, south of Taylor's shaft, is in hard granite. The lode in the 90, west of Taylor's, is small and valueless. The 80, west of this shaft, is wet and troublesome for driving. In the 90, east of Taylor's, the lode consists chiefly of calcareous spar, with good stones of ore. The 80 fm. level, east of Addis's, continues to open up highly productive ground; present value 3 tons per fathom. The lode in the 65 fm. level, east of this shaft, is improving, yielding ½ ton of ore per fathom. The 65, west of San Carlos shaft, is hard and poor. In the 80 fathom level, driving in the same direction, the lode is wide, and composed chiefly of carbonate of lime. The lode in the same level east is improving in appearance. The 65, east of Judd's, continues unproductive. In the 45, east of Judd's, the ground is hard, and the lode small and poor. No change in the 32 fm. level cross cut, north of Judd's shaft. The sinking of Henty's shaft below the 55 progresses well. The lode in Felipe's winze, below the 65, is large and strong, and yields stones of ore. Tomas winze is holed to the 90 fm. level.

LANESTOSA.—April 20: Matienzo: The lode in the 50 metre level, north of Guillermo's shaft, carries a good branch of fluor spar, but is now without ore. The same level south has passed through a bar of silicious stone, and is now improving in character. The driving of the 50 metre cross cut, east of Guillermo's shaft, has been resumed in hard limestone. The 50 west continues hard, and progress consequently slow. The 30 metre level, on west lode, north of San Vicente shaft, contains strings of lead ore. The same level south is in disordered ground. The 30 metre level, on east lode, north of San Vicente shaft, has a small branch of lead ore, with a little fluor spar. The 30 metre level south, on the same lode, yields occasional stones of lead ore in shale and flookan. The lode in La Cruiz deep adit is 3 ft. wide, yielding 2 tons of calamine ore per fathom. Branches of lead ore are still being met with in stoping at Asuncion. The tributing in the old mine is confined to raising a little lead ore.

FORTUNA.—April 18: Canada Incosa: The 120, west of O'Shea's engine-shaft, is in contact with the main cross course. The lode in the 110, west of Judd's, yields 1 ton of ore per fathom. The 30, east of San Carlos shaft, continues worthless. The 40, west of Abercrombie's, is very poor at present. The 50, driving in the same direction, is much improved, and is now opening ore ground worth 1½ ton per fathom. In the same level east the lode is small and unproductive. The 40, east of Abercrombie's continues without improvement. The 60, west of San Pedro's, is opening paying ground, worth 1 ton per fathom. The lode in the 70, east and west of San Pedro's shaft is opening ore ground, valued at ¾ ton per fm. We expect a good length of profitable ground here in each direction, being near the productive ground in the level above. The 120, east of O'Shea's engine-shaft, looks promising, but is not producing any ore at present. The lode in the 110, east of Addis's, is worth 1 ton of ore per fathom. At the 90, east of this shaft, the men are cross cutting south to prove that part of the lode. In the 90, west of Kennedy's, the lode is large and easy for driving, but is without ore. The lode in the 160, west of Lowndes's, has changed unfavourably. In the same level east there are irregular branches carrying a little ore. The 90, east of Caro's, is poor. The 80, east of the same shaft, is small and valueless. At San Pedro's shaft the men are cutting plat for cistern, and a lodge for the stuff preparatory to sinking to a new level. Serrano's winze below the 30 is not producing ore to value at present. Fernandez' winze below the 60 yields ¾ ton per fathom. Ruiz's winze below the 60 yields ½ ton per fathom.

Los Salidos: The lode in the 130, driving west of Buenos Amigos shaft, is small and unproductive. In the 120, west of this shaft, the lode is regular, but less valuable than it was a short time since; present worth ½ ton per fathom. The lode in the 110, west of San Carlos, is very small, yielding stones of ore occasionally. The 130, east of Buenos Amigos shaft, is at present poor. The 130, west of Morris's engine shaft, is very hard for driving. In the same level east the lode is large and open, and produces ½ ton per fathom. The lode in the 120, east of Cox's shaft, is disarranged. The 110, east of San Pablo's, although not so productive as it was, is still opening a fine run of ore ground, valued at 2 tons per fathom. The lode in the 25, west of Swaffield's, is regular and well defined, and produces 1⅛ ton per fathom. The same level east yields ⅛ ton per fathom. There is no improvement in the 45, west of Swaffield's. The 55, west of Palgrave's, has fallen off very much in the past week. The 65, in the same direction, is in hard granite. In the same level east an unfavourable change has taken place in the lode in the past few days; present value 1 ton per fathom. The 55 east has also fallen off in value lately to ½ ton per fathom. The plunger has been fixed in Palgrave's shaft at the 65, and sinking will now proceed with regularity. In sinking San Miguel shaft below the 100 the men are working well, but the granite is very hard. Good progress is being made in sinking Swaffield's shaft below the 45. The lode in Alvarez winze, below the 120, is large, and contains good stones of ore. The weekly weighings of ore were kept up with great regularity in the past month, and the stopes are now, on the whole, without any alteration worthy of notice. The works at surface are going on steadily, and the machinery is in good condition. We estimate the raisings for April at 350 tons.

ALAMILLOS.—April 18: The lode in the 60, west of San Francisco shaft, is at present without ore. The 50, west of San Felipe's shaft, has a better appearance, and is producing a little ore. The lode in the 40, driving in the same direction, does not contain sufficient ore to value. The 20, west of this shaft, yields ½ ton per fathom. The 25, west of Abercrombie's, is opening ground worth ¾ ton per fathom. In the 40 west the lode is regular, and has a promising appearance, and yields ¾ ton per fathom. The lode in the 80, west of Magdalena cross-cut, is composed of quartz and a small quantity of lead ore. The 100, east of Taylor's engine-shaft, contains spots of ore, and is letting out more water. The same level west is not quite so productive as it has been, the present yield being ½ ton per fathom. The 85, west of San Adriano's shaft, also yields ½ ton per fathom. The 60, east of San Victor's shaft, is expected to reach the lode very shortly. In the same level west the value of the lode has somewhat fallen off; worth at present ¾ ton per fathom. A cross cut is being driven north at the 30, east of San Jose's shaft, to intersect the lode. The 50 metre level, east of Judd's engine-shaft, produces 1 ton of ore per fathom. The lode in the 70, west of this shaft, is small and poor. The 50, east of Judd's cross-cut, is being driven in hard granite. The same level west is unproductive. The sinking of San Victor's shaft below the 60 will be commenced as soon as the ground for the cistern is cut. In Sanchez' winze, below the 40, the lode is regular, and yields ¾ ton per fathom. Horno's winze below the 50 will be holed to the 60 in a few days. The sinking of Bretone's winze below the 25 is temporarily suspended in consequence of an increase of water. The lode in Tomoteo's winze, sinking below the 85, is large, and spotted with ore.

COAL MINES REGULATION ACT, 1872.

EXAMINATION FOR MANAGERS' CERTIFICATES OF COMPETENCY.

DISTRICT UNDER THE CHARGE OF F. N. WARDELL, ESQ., H.M. INSPECTOR OF MINES.

PERSONS desirous of being EXAMINED in this district, for MANAGERS' CERTIFICATES OF COMPETENCY, under the above-named Act, should at once COMMUNICATE with the SECRETARY to the BOARD of the ABOVE-MENTIONED DISTRICT, at the following address:—

By order of the Board,
JOHN R. JEFFERY, Secretary,
5, Piccadilly, Bradford, Yorkshire.

N.B.—Persons who do not reside within the District are equally eligible for examination with those who do.

WM. W. KENRICK, CONTRACTOR.

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FOR SALE, the WHOLE or PART:—

100 ABERDAUNANT.	£ 0 13	0	5 LISBURNE LEAD	£60	0 0
20 WYE VALLEY	4 0	0	10 MINERA	17	0 0
20 GROGWINION	3 15	0	100 BODIDRIS	1	0 0

TYN-Y FRON.—Shares in this promising mine to be had at 2s. 6d. per share premium, £1 2s. 6d.
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H. WILKINS and Co. will shortly publish a Monthly Circular, giving account of the last monthly doings on the market, and will give a short history and advice as to three or four of the market mines, commencing with Aberdaunant, Bodidris, East Darren, East Van, and Van Consols.
Parties desirous of having a Circular, will please remit Five Shillings for same, as a limited number only will be issued, and those only to subscribers.

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SPECIAL BUSINESS in the following SHARES:—

25 Assheton, £1¾.	30 Frontino, £1 16s. 3d.	70 Penstruthal, 11s.
50 Aberdaunant, 13s.	15 Great Laxey, £20¾.	50 Pennerley, 11s. 6d.
75 Birdseye Creek, 16s 3.	40 Glenroy, £1½.	120 Prince of Wales, 3s 9d
60 Cathedral, £1 2s. 6d.	25 Glyn, £1 11s. 3d.	100 Port Phillip, 9s.
20 Chicago, £4 3s. 9d.	15 Grogwinion, £3 16s 3d	20 Richmond, £6⅜.
70 Cedar Creek, 11s. 3d.	150 Javali, 8s.	10 Romam Grav., £12¾.
40 Colorado Ter., £1 8s 9d	Ladywell.	50 Rookhope, 18s. d.
80 Chontales, 8s. 9d.	45 Marke Valley, 17s. 6d.	50 South Aurora, 6s.
5 Chapel House, £3 3s 9.	5 Minera, £12½.	20 Tankerville, £8 11s. 3d
100 Don Pedro, 9s.	10 Monydd Gorddn, 5¼	80 Tecoma, 12s.
25 Eberhardt, £7⅞.	65 North Laxey, 17s.	25 Wheal Crebor, £2¾.
58 East Caradon, 16s.	20 New Quebrada, 3 18 9	20 Grenville, £1⅛.
10 East Van, £6¾.	25 N. Zealand Kapanga, £25⅝.	50 Wheal Peevor, £25⅝.
75 Exchequer, £1 11s 3d.	90 Parys Mount., 7s. 9d.	60 W. Tankerville, £1 6s 3
50 Frank Mills, 12s.	25 Pateley Bridge, £25⅝.	35 Van Consols, £1 13s. 3.
20 Flagstaff, £2⅞.		

SPECIALLY RECOMMENDED.—Van, Van Consols, Great Laxey, Cathedral, Penstruthal, Don Pedro, and Chapel House Colliery shares.
SOLE AGENT for COLVERD'S PATENT CARRIAGE POLE HEAD, for the instantaneous release of horses in the event of accidents, by falling or otherwise.

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THE ENGINEER'S, ARCHITECT'S, AND CONTRACTOR'S POCKET-BOOK (Lockwood and Co.'s, formerly Weale's) for 1877, with Ten Copper-plates and numerous Wood-cuts.
"A most complete and valuable compilation for the engineer, architect, and contractor, full of most useful tables and formulæ."—*Practical Magazine.*
London: CROSBY LOCKWOOD and Co., 7, Stationers' Hall-court, E.C.

EXCHEQUER.—Capt. Nettle states that there are upon the dumps some 500 tons of ore from the 140 ft. level, which will yield not less than $500 per ton. To satisfy themselves as to the correctness of this valuation, the directors sent to Messrs. Johnson and Matthey a piece (weighing some 5 or 6 lbs.) of the rock broken by Mr. Mansell from this portion of the ore body. Their assay shows, 5·70 ozs. gold, and 660 ozs. silver, equal to about 170*l.* per ton.

COMBELLACK MINES.—The company have at length reached the point for which they have been working since the commencement of operations—the cutting of the great lode of the district, which comes into the property from the adjoining mine. The lode has already been cut into 8 ft., and opened upon in length 16 ft. The exact width is not at present known. It bears every indication of being the same as that in the adjoining mine, which was valued at 200*l.* per fathom when working was suspended in consequence of the lode having dipped in such a manner as to carry it into the Combellack ground. The company have sunk the main shaft 40 fathoms, at which point it was anticipated the lode would be reached. This anticipation not being realised, a cross-cut was put out south from the bottom of the shaft, and the lode was then cut. The exact position of the lode having now been proved, the shaft will be sunk another 3 fms., when the lode, from its present dip, will come into it, and the men will thus be enabled to work it from the shaft. In addition to the great lode, this shaft intersected two smaller lodes of a rich character; a fact that speaks well for the richness of the mine, as the reach of the sett directly corresponds with the run of the lodes. A quantity of tinstuff has already been sent to surface from this cross cut, and operations for returning the tin to market will shortly be commenced.

CHEMICALS, MINERALS, AND METALS.—(Messrs. J. Berger Spence and Co., April 25)—Acetate of Lime, 10*l.* per ton.—Alumina: Alum, 6*l.* 15s. for loose lump; ground, 7*l.* 15s.—Aluminous cake, 4*l.* 10s.—Ammonia: Sulphate, grey, 18*l.* 10s.; best London white, 19*l.* 5s.; muriate—white, 27*l.*; grey, 26*l.*; sal ammoniac, firsts, 45s.; seconds, 44s.—Acid: Tartaric, English, ground or crystal, 1s. 7d.; foreign, 1s. 6½d., crystals; oxalic, 5d.; sulphuric, 3*l.* 10s. to 3*l.* 15s.; picric acid, 1s. 9d. per lb.—Arsenic: New Consols make 8*l.* 15s.—Bleaching Powder: At 5*l.* 17s. 6d.; for the whole of 1877, 6*l.* 5s.—Litharge: Best flake, 24*l.*—Metallic Salts: Iron salts, green and rusty copperas, 55s.; in casks or barrels, 60s.—Copper Salts: Sulphate of copper, 23*l.*—Magnesia: Epsom salts, 3*l.* 12s. 6d.—Nitrate of Soda: 12s. 9d. to 13s.—Potash: Muriates, 80 per cent., at 6*l.* 8s. 6d. f.o.b.; Prussiate, yellow, 11½d.; chlorate, 9d.; bichrome, 4½d.—Soda: Cream caustic, 60 per cent., 12*l.* 5s.; white, 60 per cent., 12*l.* 12s. 6d.; soda ash, 17s. 6d.; soda crystals, 4*l.* 7s. 6d.; bi carbonate, 11*l.*, salt cake, 3*l.*: Glauber salts, 2*l.* 17s. 6d.—Sugar of Lead: Brown, 26*l.*; grey, 31*l.* 10s.; white, 38*l.*—Brimstone: Best thirds, 5*l.* 15s.—China-clay: 15s. f.o.b Cornwall; "Rosemullyn," 24s.; "BM," 34s.—Iron Ore: Hematite, 15s. to 22s. 6d.; Algerian, 53 per cent., 14s. f.o.b.—Manganese: Ores, 90s. for 70 per cent.—Pyrites: Spanish cupreous, 5½d.; non-cupreous, 6¾d.—Phosphate of Alumina, 3*l.* to 3*l.* 10s. per ton.—Phosphates: High strength, 80 to 85 per cent., 1s. 4d. to 1s. 5d. per unit; Estremadura, 1s. 3d.; ordinary, 60 per cent., 1s.; precipitated phosphate of lime, 70 per cent., 5*l.* 15s.—Iron: Middlesborough Pig-iron, No. 1, 46s. 6d.; No. 3, 42s.; No. 4 (foundry), 41s. 6d.; No. 4 (forge), 40s. net.—Hematite, No. 1, 70s.; No. 2, 67s. 6d.; No. 3, 64s. 6d.; No. 4, 64s. 6d.; No. 5 (mottled and white), 64s. 6d.—Bessemer, No. 1, 70s.; No. 2, 67s. 6d.; No. 3, 64s. 6d., less 2½ per cent.—Scotch warrants, 53s. 10½d.; Scotch, g.m.b., No. 1, 54s.; No. 3, 50s. net.—Copper: Chili bars, 70*l.*; B S. ingot, 79*l.*; tough cake, 77*l.*—Lead: Best English soft pig, 21*l.* 5s.; German soft pig, 21*l.* c.i.f., Liverpool or London—Spelter: Silesian, 20*l.* 10s.; English, "Swansea Vale," 21*l.* 10s.—Tin: Straits, 69*l.*; Australian, 69*l.*; British, 74*l.*—Tin-Plates: Best charcoal, 26s.; charcoal, 25s.; best coke, 23s.; coke, 22s.—Tubes and Fittings: Discounts on application.

Vice-Chancellor Bacon has appointed Mr. B. P. Daniels (Good, Daniels, and Co.) provisional official liquidator of the Paris Skating Rink Company.

LEAD ORES.

Date.	Mines.	Tons.	Price per ton.	Purchasers.
April 21	Foxdale	80	£13 3 0	Nevill, Druce, and Co.
24	De Broke	20	13 3 0	ditto
	Plynlimmon	20	13 7 0	ditto
25	Great Dyliffe	60	13 12 6	Panther Lead Co.
26	Kingston Consols	8 0 2	17 6 6	Sheldon, Bush, and Co.
—	ditto	5 3 0	11 13 6	Nevill, Druce, and Co.

BLENDE.

Date.	Mines	Tons.	Price per ton.	Purchasers.
April 26	Cwm Elan	20	£ 3 10 6	Swansea Vale Co.
	Kingston Consols	22 13 2	4 10 0	Dillwyn and Co.
	ditto	24 7 3	2 13 6	ditto

BLACK TIN.

Date.	Mines.	Tons c. q. lb	Price per ton.	Amount.	Purchasers.
April 21	Pedn an drea	9 4 0 15	£42 5 0	£388 19 8	Carvedras.

COPPER ORES.

Sampled April 11, and sold at Swansea, April 24.

Mines.	Tons.	Produce.	Price.	Mines.	Tons.	Produce.	Price.
Italian Ore	121	17¾	£11 15 6	Cape Ore	8[illegible]	27½	£19 1 0
ditto	121	17¼	11 17 6	ditto	8[illegible]	27½	19 2 0
ditto	94	10¾	6 18 6	ditto	8[illegible]	27½	19 0 6
ditto	93	10¾	7 1 6	ditto	8[illegible]	27½	19 2 0
ditto	93	10¾	7 1 6	Cronebane	5[illegible]	23½	1 1 0
ditto	93	10½	7 3 0	ditto	97	23½	1 1 0
ditto	89	12½	8 0 6	ditto	9[illegible]	29½	1 5 6
ditto	17	5¼	6 2 6	Berehaven	1[illegible]	8	5 6 0
ditto	10	11½	8 0 0	ditto	8[illegible]	105½	7 6 6
Algerian Ore	93	7¾	4 12 0	ditto	87	103¼	7 7 6
ditto	63	8¼	5 4 0	Carracedo	102	141½	9 11 6
ditto	14	7	4 4 6	ditto	30	91½	6 0 6
ditto	12	13¾	9 2 6	ditto	10	131½	8 15 6
ditto	101	7½	4 18 0	Santander	70	203½	14 2 6
ditto	101	7¾	4 15 6	La quelo Abar.	69	153½	10 8 6
ditto	25	9½	5 19 0	Cuba Precip.	45	59¼	41 0 0
Rio Tinto	65	78½	52 0 6	ditto	19	16¼	10 15 0
ditto	45	74½	50 2 0	Moonta Ore	16	26¾	18 8 0
ditto	42	73¾	49 18 6	Telhadella	14	11¾	7 5 6
ditto	62	69½	47 12 6	Copper R.g.	9	33¾	23 0 0
ditto	60	71¾	47 15	Cop. Sludge	2	25½	15 4 0
ditto	60	71¼	48 11	Austra. Ore	1	36½	25 7 0

TOTAL PRODUCE.

Italian Ore	681	£ 5,990	12 0	La Que lo Abarca	60	£ 624	0 0
Algerian Ore	409	2,049	9 6	Cuba Precipit.	64	2,049	5 0
Rio Tinto Pre.	334	16,463	14 6	Moonta Ore	16	294	8 0
Cape Ore	332	6,330	16 6	Telhadella Ore	16	116	8 0
Cronebane Ore	327	365	12 6	Copper Regulus	9	207	0 0
Borehaven Ore	268	1,777	2 0	Copper sludge	2	30	8 0
Carracedo Ore	142	1,245	3 0	Australian Ore	1	25	7 0
Santander Ore	70	988	15 0				

COMPANIES BY WHOM THE ORES WERE PURCHASED.

Names.	Tons.	Amount.
P. Grenfell and Sons	1[illegible]9½	£ 3,202 4 0
Nevill, Druce, and Co.	448½	8,673 15 6
Vivian and Sons	552	8,016 18 0
Williams, Foster, and Co.	834	7,043 2 0
Mason and Elkington	270½	2,437 3 0
Charles Lambert and Co.	157	2,638 5 6
Sweetland and Co.	101½	1,416 13 0
Landore Copper Company	167	4,53[illegible] 13 0
Total	2731	£38,558 11 0

TOTALS AND AVERAGES.

	21 cwts.	Produce.	Price.	Per unit.	Standard.
Whole sale	2731	20 13-16	14 2 4	13s. 6d.	£ 89 0 10

Copper ores for sale on May 8.—New Quebrada ore 63, 61, 62, 57, 57—Copper ore 117, 104, 10, 7, 9—Moonta ore 99, 62, 62—Cape ore 70, 69, 82—Berehaven ore 89, 88—Cronebane ore 93—Copper regulus 42—Australian ore 19, 3, 8 = 1334 tons.

Mining Correspondence.

BRITISH MINES.

ABERDAUNANT.—S. Toy, April 25: Good progress is being made in cutting down the new shaft, also in cutting the plat. I expect in about a week more the men will finish the shaft down to the deep adit level, and complete their contract. In the east part of the sett (Crowlwm), in the cross-cut driving towards the new lode, during the past week we have met with two branches crossing the level, and each of them contains nice barytes, soft flookan, and spots of lead and copper ores.

BAMPFYLDE.—J. Juleff, H. T. Haley, April 25: In the 112, west of No. 4 shaft, the lode is large, and worth 10*l.* per fathom, with a very promising appearance for further improvement, seeing the lode in this end so kindly, and from the fact of 90 fms. of ore ground being driven through in the 102 end west before it, lead us to hope and believe that the 112 will open out a very productive and valuable piece of copper ore ground. In the 102 end, west of No. 4 shaft, the lode is 12 in. wide, producing stones of copper ore. In the 90 end, west of No. 4 shaft, the lode is 20 in. wide, 9 in. of this is producing an excellent quality copper ore, and worth at present 7*l.* per fathom, and bids fair for further improvement; this being the westernmost level opened on the lode shows there is an important piece of ground in this direction; this level we advise being driven with all speed, and we have no doubt, comparatively speaking, will open out a new mine. No. 1 stope in back of the 112, west of No. 4 shaft, is worth 8*l.* per fathom. No. 2 stope in back of the 112, west of No. 4 shaft, is worth 8*l.* per fathom. No. 3 stope in back of the 112 is worth 10*l.* per fathom. Seeing the improved quality of the copper ore in the 112, and a stronger looking lode than in any of the upper levels, we think it advisable and important to sink the No. 4 shaft to a deeper level so as to open out more ore ground.

BEDFORD UNITED.—R. Goldsworthy, William Phillips, April 24: Setting Report: To drive the 127 east, by six men, at 14*l.* 10s. per fathom; lode 2 ft. wide, composed of congenial capel, mundic, and copper ore, worth 12*l.* per fathom. To drive the same level west, by four men, at 10*l.* per fathom; at present the lode is disordered by a cross head or joint, and poor, but we think this is only temporary. The engine shaft is now down below the 127 about 5 fms 3 ft.; the lode is all taken down close to the bottom, and has a fine, strong, and masterly appearance; we have every reason to believe it will continue; it is worth 40*l.* per fathom, or 8*l.* for the length of the shaft (12 ft.) To drive the 115 east, by four men, at 9*l.* 10s. per fathom; lode 3 ft. 6 in. wide, worth 12*l.* per fathom—a fine strong lode, and letting out water freely. To drive the same level west, by four men, at 11*l.* per fathom, lode worth 6*l.* per fathom. Three stopes in the back of this level—No. 1, or eastern stope, by four men, at 5*l.*; No. 2, by four men, at 5*l.* 10s.; and No. 3, by four men, at 5*l.*—and one in the back of the 103 east, by four men, at 5*l.* 10s. per fathom. These stopes are worth on an average about 9*l.* per fathom. To drive the 103 east, by two men, at 12*l.* per fathom; lode about 2 ft. wide, worth 10*l.* per fathom—a very promising lode. To sink a winze in the bottom of this level, by six men, at 14*l.* per fathom. To drive the 103 west, by two men, at 10*l.* per fm.; the lode is small and poor. To continue sinking the wiuze in the bottom of this level, by nine men, at 15*l.* per fathom, lode worth 10*l.* per fathom. From the continued poverty of the 47 east, on the south lode, and the appearance of the ground, we have suspended the end for the present. In consequence of the defective state of the drawing engine we have not yet been able to clear the cross-cut south, towards the Bridge lode. Although the western levels are not at present productive, there is no reason to doubt that upon being extended further they will again improve. The shaft and the eastern ends continue to look well, and the mine generally is in a healthy condition.

BLUE HILLS.—S. bennetts, A. Gripe, April 21: The north section of the lode in the rise above the 80 is by the gossan about 1 ft. wide, carrying a rich leader of tinstuff on the footwall from 2 to 3 in. wide, a most promising lode, and the killas in connection with it is all that can be desired. The same lode in the stope on the south section is worth 8*l.* per fathom. In the course of a few days we expect to resume the driving of the 30 east on the south portion of the north lode

BODIDRIS.—H. Hotchkiss, April 25: All points of development at this mine are progressing with as much speed as possible. No material change in any of the drivings with the exception of the 45 east, which is. I am pleased to say, looking much better for lead ore, and I think that we are entering now upon another course of ore. I hope to be able by next week to give a valuation of this end. The 60 yard level is still in very hard ground; the heading part of the lode is disseminated throughout with blende. I am daily expecting a favourable change in this end. The same favourable ground in the cross-cut for Maes-y-Pwll lode still continues.

BRONFLOYD.—Thomas Kemp, April 26: In No. 3 shaft, north lode, the men are still making fair progress with the sinking below the 110. The lodes in the various other bargins throughout the mine are without change to remark since last report. We have sampled to-day 25 tons of silver-lead ore, for sale on the 30th inst. Full report next week.

CARGOLL.—J. Jennings, April 25: Bowyer's flat rod shaft is sunk 8 fms. below the 24, and capital progress is being made, and hope to get to the required depth for the next level (34) in a month more; we are also making good speed in cutting down the east end of this shaft from surface, by nine men, for a larger engine. The 24 east, on the caunter lode, seems to be turning in its right direction for making lead, and hope soon to see a good lode of lead in this end again. The 24 west, on the south lode, is very kindly; this lode varies in value, now worth 4*l.* per fathom. I may also say that this lode has produced larger quantities of lead ore at this level, west of Bowyer's shaft, than in any of the upper levels, thus showing that as we get deeper greater results for lead may be expected. The lode in the rise in the back of the 24, east of shaft, is holding up very well for lead, is worth 18*l.* per fathom, and is about 4 fms. short of holing to the winze sunk from the 11, which, when suspended on account of quick water, was worth 3*l.* per fm; the water is going down rapidly in the winze. In the main adit west there is now more flookan in the lode; it is still producing lead ore, and highly promising. The lode in the rise in back of this level is also producing good dressing work for lead, with mundic, blende, and spotted with copper ore.

CATHEDRAL.—Joseph Michell, April 23: The lode in the 42 end west is looking very much better; it will now turn out close upon 2 tons of ore a fathom, with every appearance of an early and great impovement. We have not yet reached the cross-branch, but are daily expecting to do so, when, judging from the change that it made in the lode in the levels above, we shall have a good course of copper ore in this end—the 42. The 42 end east has reached the cross course, or a limb of it; I shall be able to tell you more about this in two or three days. The shaft men are getting on very well with cutting plat and barrow-road, and we hope to start to sink by the latter end of this week or the beginning of next the engine-shaft below the 52. Everything else is carrying on very satisfactorily.

— John Michell, April 23: Our shaftmen are making fair progress towards completing their contract in cutting plat, &c., and if all is well we shall begin to sink the shaft below the 52 next week. There is nothing new in the 52 end, west of shaft. I am glad to say the appearance of the lode is still improving in the 42 end west. It will now produce from 1 ton to 1½ ton of ore per fathom—a very good lode. In the 42 end driving east I believe we are now come to the cross-course; we shall drive through it to find the lode on the other side, this being the first level ever driven through the cross course to cut the lode on the east side. I think it will be of very great importance, and no doubt, when properly developed, you will have a productive lode.

CLEMENTINA.—Wm. Bennetts, April 20: The lode in the north end of the shaft is worth 2 tons of lead per fathom, and in the south end of the shaft 1 ton per fathom, averaging 1½ ton per fathom; the shaft appears to be going down between two distinct shoots of lead, for the lead in the south end is not of the same kind of ore as that in the north end: it is a splendid looking lode. The lode in the 25 end south has again improved, worth 1 ton of lead per fathom. I have put the men who are hindered by the water to rise in the back of the 25 end, so as to communicate with the stopes in the bottom of the 15, when we shall be in a good position for stoping, so as to break away lead for the market.

COMBMARTIN.—E. Hosking, April 20: During the past week the winze below the 28 has been secured to the 37, and the men are now engaged in clearing the stuff which was lodged in the 37. This will be finished by Monday, when they will commence to take down the lode that is standing in the north side of the level for about 3 fms. long. The lode driven through from the winze eastward to where it is standing in the side of the level contains silver lead for almost all the distance, and when this north side is taken down we expect to find lead that will pay to stope. The lode in the 31, east of the winze, is 3 ft. wide, with branches which will yield ¼ ton of silver-lead to the fathom, a very promising lode. There is a pile of ore drawn to surface which looks very well, and I have no doubt there is paying ground from the 28 to the 37.

CWM ELAN (NEW).—W. Goldsworthy, April 21: The engine shaft is going down very well; the lode here has not been taken down this week. We shall strip it down in the ensuing week, when the composition and value thereof shall be sent you. As we advance in the 30, west of shaft, the lode is looking more mineral-ed than it has done for some time past, and the lode here has improved in value since this day week; it is worth in the present forebreast 15 cwts. of lead and blende ores per fathom. The stopes throughout the mine are in full operation, and the return in mineral (lead and blende ores) from them has not varied the slightest since you last received my estimation of value. Surface operations are being pushed forward with all speed. The parcel of blende ore is waiting instructions for disposal, and we have nearly 10 tons of lead ore in the bin.

CWM DWYFOR.—J. Jewell, April 26: Stewart's Shaft: We are making fair progress in sinking this shaft, and hope by the end of next week to be deep enough for the 20 fm. level, when we shall fix sollar in the bottom of the shaft and commence to cut barrow-road. Surface: We shall finish the roof of the smiths' shop this week. I have six miners here.

CWMYSTWITH.—April 26: Setting List: In Michell's level west, on the new lode, the lode in the end is small and poor, and in disordered ground. We have suspended the driving for the present, and have placed two men to rise in back of the level 2 fms. from the forebreast, on the pipe of ore recently driven through. In a rise in back of Michell's level west, on the new lode, the lode is 2 ft. wide, worth 12 cwts. of lead ore per fathom. In a winze to sink under Michell's level west, on the new lode, the part of the lode as being taken down for 1 ft. wide is poor, but we are still leaving the south or main part standing. In Michell's level west, on Michell's lode, we have an improvement; the end is now worth 15 cwts. of lead ore per fathom. In Michell's level east the lode shows nice spots of ore, but not sufficient to value. We have set a cross cut to drive north in the 12, in order to cut Michell's lode 12 fms. over Michell's level, and as the lode looks well under we think it a worthy trial, and only 6 fms. to drive. In Michell's level east, on the new lode, the lode is 2 ft. wide, still showing spots of ore—saving work for dressing. In Gill's upper level, to drive east on the new lode, the part of the lode being carried in the level for 5 ft. wide is strong and masterly, worth 10 cwts. of lead ore per fathom. In a rise in back of the Rosa level, on the new lode, the lode is 2 ft. wide, worth 10 cwts. of lead ore per fathom, or 15 cwts. for the length of the rise, 9 fs.; a nice little pipe of ore, but short. In a stope in back of Michell's level west, on new lode, the lode is 2 ft. wide, worth 12 cwts. of lead ore per fm. In a stope in back of Michell's level west, on new lode, the lode is 2 ft. wide, worth 10 cwts. of lead ore per fathom—suspended for the present. We have placed the men to drive the cross cut north in the 12. In a stope in back of the Level Fawr, on the copper lode, the lode is 2½ ft. wide, worth 12 cwts. of lead ore per cubic fathom. We have not cut anything of value west of this stope as yet, although we have stripped out a large piece of the lode. In a stope in back of the 24, on Kingside lode, the lode is still worth 12 cwts. of lead ore per fathom. In a stope in back of the 15, on Kingside lode, the lode is 2 ft. wide, worth 10 cwts. of lead ore per fathom.

DERESBY MOUNTAIN.—W. Bennetts, April 24: The lode in the deep adit level has very much improved in the last day or so, and is now worth 7 cwts. of lead per fathom, and a good mixture of blende.

DERWENT.—J. Morpeth, April 24: I beg very respectfully to hand you the accompanying list of bargains let here on Saturday last, with estimate of ore, &c.:—Jeffrie's Shaft, Middle Vein: The 95 upon this vein, 45 fms. east of shaft, yields 10 cwts. of ore per fathom; the vein is 3 ft. wide, and very promising. No. 1 stope in the back of the 36 east of shaft is 6 ft. wide, and worth 19 cwts. of ore per fm. No. 2 stope in the 36 east of shaft is 4 ft. wide, and produces 24 cwts. of ore per fathom. No. 3 bargain is the flats wherein we have proved the ground for 11 ft. 1 in. northwards from the vein, and 3 fms. eastwards as the vein runs northwards; the value is 1 ton 12 cwts. of ore per fathom; eastwards 2 tons. No. 4 stope is 4 ft. wide, and worth 14 cwts of ore per fathom. No. 5 stope is 3 ft. wide, and worth 12 cwts. of ore per fathom. No. 6 stope is 4 ft. wide, and worth 14 cwts. of ore per fathom. The cross-cut at the 95, opposite shaft, has been driven last month 3 fms. 4 ft. in stiff ground. The 93, 109 fms. west of shaft, at present is poor; the vein is 1½ ft. wide. No. 1 stope in the back of the 100 west of shaft produces 14 cwts. of ore per cubic fathom; the vein is 8 ft. wide. No. 2 stope in the 94 west of shaft is worth 24 cwts. of ore per cubic fathom; the vein is 8 ft. wide. No. 3 stope in the 90 west of shaft yields 17 cwts. of ore per cubic fathom; this vein is 8 ft. wide also. Two men are cutting sides over this level 87 fms. west of shaft, which are yielding 24 cwts. of ore per cubic fathom.—Sun Vein: In stoping the bottom of the 70 cross-cut opposite the shaft last week we discovered this vein, which is 2 ft. wide, composed of limestone, carbonate of iron, and lead ore of a very excellent quality; worth 20 cwts. per fathom. I have set a bargain to four men to cut the ground on the sides of the cross-cut for standing room for windlass for 5*l.* 15s., after which we shall sink to prove the vein in depth.—North Vein: The 50, 198 fms. east of Reed's, is now being driven in a more south-easterly direction towards the south part of the vein; the north part is both small and poor.—Taylor's Shaft, Middle Vein: Towards the latter end of next week I hope the repairs to this shaft will be completed to the 50. Of late we have had some heavy crushed stuff to pass through. The cross-cut at the 40, 126 fms. east of shaft, was driven last month 1 fm. 3 ft. 5 in., now a cross 16 fms. 9 in.; the only change is the ground is stiffer.—Westgarth's Shaft, Middle Vein: Before resuming the driving of the 93 east of shaft we are stripping down the side of the lode left standing a few fathoms back from the end, which is yielding 10 cwts. of ore per cubic fathom. The stope over the 74, 176 fms. west of shaft in the little limestone, is 3 ft. wide, and produces 20 cwts. of ore per fathom. The machinery is all working very well except the chert mill on the dressing-floors, which is undergoing repairs.

DEVON GREAT CONSOLS.—J. Richards, April 27: Wheal Emma, Inclined Shaft: In Alford's cross-cut south at the 100 west a small branch of copper ore and arsenical mundic has been met with, which appears to be dropping into the other branch recently met with in this cross-cut. The new shaft on the new south lode is being continued below the 175, and a portion of the north part of the lode carried, 5 ft. wide, is worth 4 tons of ore, or 12*l.* per fathom.—New Shaft, New South Lode: In the 175 east on the south part of the lode the part carrying, 5 ft. wide, is worth 2 tons, or 8*l.* per fathom. In the 175 west, on the south part of the lode, the lode is yielding stones of ore, and is promising improvement. In the 160 east the portion of the lode carried, 5 ft. wide, is worth 5 tons, or 15*l.* per fathom. In Gorrell's winze, below the 160 east, the men are engaged fixing lift; the present bottom of the winze is worth 5 tons, or 15*l.* per fathom. In Toy's winze sinking in the bottom of the 145 east, the portion of the lode carried, 5 ft. wide, is worth 8 tons, or 30*l.* per fathom. In the 130 east, and east of Tregay's cross cut, the lode is 5 ft. wide, yielding 8 tons, or 25*l.* per fathom. In Bickle's winze, sinking below the 130, east of Tregay's cross-cut, the lode is 2 ft. wide, worth 4 tons, or 15*l.* per fathom. In the 115 east (the farthest point reached eastward on this lode) the part of the lode carried is improved, being now worth 5 tons, or 15*l.* per fathom, with more lode of the same quality standing north.

DUBBY SYKE.—W. Tallentire, April 19: Dubby Syke Level: There is not much change in the appearance of the vein, except that we are finding better samples of lead ore. There is no doubt that we shall find a mine in the ground which is now before us.—Shooting Box Level: There is still a great deal of confusion here; as we drive east the beds dip fast, which shows that there is still more cross-strength—or vein—before us.

EAST VAN.—W. Williams, April 25: We are getting on well with the sinking of Tempest shaft for the 40. There is no change of importance in any part of the mine. The lode in the cross cut at the end of the 25 still looks very promising. We shall resume the driving westward upon the course of the lode towards Van in the beginning of next week.

FRANK MILLS.—J. Rowe, N. Addems, April 26: Good progress is being made in clearing the 115, north of engine-shaft; we have about 6 fms. more to clear to enable us to drive a cross cut west, to meet with a lode in the winze sinking in the bottom of the 100 north, on the east lode. The winze sinking in the bottom of the 100, north of the engine-shaft, on the east lode, is producing 12 cwts. of lead ore per fathom; we are leaving a part of this lode standing in the west side of the winze. No. 1 stope, in the back of the level, is producing 12 cwts. of lead ore per fathom; No. 2 stope is producing 6 cwts. of lead ore per fathom, No. 3 stope is yielding 10 cwts. of lead ore per fathom, and No. 4 is producing 8 cwts. of lead ore per fathom. In the 100, about 110 fathoms north of the engine-shaft, on the west lode, we are driving a cross-cut east to intersect the east lode, and have just met with a very promising lode, producing good work for lead; we cannot give the value of this lode at present, having only intersected it in the bottom part of the end. The stope in the back of the 84, north of the engine-shaft, on the east lode, is producing 7 cwts. of lead ore per fathom. The lode in the 72, driving north of the boundary rise, on the west lode, is composed of spathose iron, containing a little lead. The stope in the back of this level is producing 4 cwts. of lead ore per fathom. Communication has been made with the rise in the back of the 60, north of the boundary rise, with the 45 north; this has given us good ventilation in this part of the mine. We are now pushing on the drivage of the 45 north, where the lode is of a very promising appearance, and producing a little lead. The stope in the back of the 45, south of the east cross-cut, north of Orchard air-shaft, on the east branches, is producing 8 cwts. of lead ore per fathom. The tribute department is producing fair quantities of lead.

GAWTON COPPER.—G. Rowe, G. Rowe, jun., April 21: The lode in the 132 east is poor. The lode in the stopes below the 117 is worth 12*l.* per fathom. The lode in the 105 east is unproductive. The south lode intersected in the 105 cross-cut is half open 5 ft. wide (not yet through it), of a most kindly appearance, producing very strong arsenical mundic, impregnated with good quality copper ore to the value of 10*l.* per fathom. This we consider a very important discovery, and likely to lead to good results, which will be much better ascertained in a few feet further driving. The lode in the 82 east is 4 ft. wide, principally composed of spar and capel, intermixed with mundic and ore. The ground in the 82 cross-cut going south is showing indications of being near the lode. All other points of operations are without change.

GLENROY.—R. Rowe, April 24: In the 60 south we continue to open out a wide lode; the part we are carrying is from 3 to 4 ft. wide, but the full width of the lode is not yet ascertained; it so far contains blende throughout, and in the last few days has yielded some good stones of lead. The 40 stopes are without change. The 25 cross-cut is in hard ground, and still letting out water. The adit level north is going through a large lode containing some copper and blende.

GLYN.—James Roach, April 23: Since my last report we have not made the progress in sinking as I then anticipated. The lift being very long, and the supply of water small, caused us trouble in consequence of air between the valve and the basket. This has been remedied, and the men will again be able to sink with their usual dispatch. The winze under the 28 west is without alteration since last reported. We are backing lead for dressing as fast as we can.

GREAT DYLIFFE.—Edward Rogers, April 25: Dyliffe Lode: The 132 is set to six men, to drive east of the engine-shaft, at 7*l.* 10s. per fathom. The lode is 4 ft. wide, and is worth 18*l.* per fathom. In the back of this level there are six men stoping, at 4*l.* 10s. per fathom. The lode is worth 18*l.* per fathom. The stope west of the shaft at this level is suspended until we fix air-pipes to improve the ventilation. The lode is a little improved, worth at the present time 15*l.* per fathom. The winze in bottom of the 120, east of the engine shaft, is down 7 fms. 1 ft; six men are cross-cutting from the bottom at 8*l.* 10s. per fathom. The value of the lode shall be given you as soon as it can be ascertained. When this winze is communicated to the 132 end, driving east, it will ventilate the two bottom levels, and enable us to stope the backs with a larger number of men, thereby increasing the quantity of work for the dressing-floors, there being profitable ground for 10 fms. in height, and a considerable length both ends of the shaft. At this level west there are six men rising, at 2*l.* per fathom, and 5*l.* 10s. per ton for the lead. The lode is worth 14*l.* per fm. At the 105, east of the cross-cut, six men are rising, at 5*l.* 10s. per ton for the lead. The lode is worth about 20*l.* per fathom. The 40 is driving east, by four men, at 5*l.* 5s. per fathom. The lode is 18 in. wide, composed of spar, with spots of lead. I expect an improvement in this end shortly.—Llechwedd-du Lode: At the 105, west of the shaft, four men have commenced to sink a winze, at 7*l.* 10s. per ton for the lead; there is not enough done yet to ascertain the value of the lode. In the back of this level east, four men are rising at 1*l.* 10s. per fathom, and 7*l.* 10s. per ton for lead. There is also another rise set in the back, at 1*l.* per fathom in height, and 7*l.* 10s. per ton for lead. Most likely those three places will open up profitable ground for a long time to come. In the 85 we are driving a midway level, by four men, at 2*l.* per fathom, and 7*l.* 10s. per ton for the lead only; the lode is 5 ft. wide, a mixture of rich copper, lead, and blende, worth about 15*l.* per fathom. There are set on tribute 25 pitches, to 99 men, as follows:—Four men, at 3*l.* per ton; four men, at 3*l.* 10s.; ten men, at 4*l.*; four men, at 5*l.*; twelve men, at 5*l.* 10s.: sixteen men, at 6*l.*; eight men, at 6*l.* 10s.; two men, at 7*l.*; and 39 men, at 7*l.* 10s. per ton. We have sold 69 tons of lead ore to-day, to the Panther Lead Company (Limited), at 14*l.* 12s. 6d., realising 817*l.* 10s.

GREAT WEST VAN.—Wm. Bramwell, April 23: I am glad to see a change for the better coming in the 46, west of the old mine. As we extend this level the lode is getting stronger and very wet, full of cavities, which contain more lead than we have seen for some time past. The 46, east of Eliza's, is still in a very strong lode for the part carried, composed of branches of lead. There is more lode standing to the south of us, and I intend blasting a few holes in the side, as I think there is something better left standing. I have put the large drawing machine to draw out of Eliza's shaft next week. The 46, west of Eliza's, is in a strong and kindly lode, which contains faces of ore, a good feed of water coming out from the very end. The south cross-cut has been extended upwards of 22 ft. through the lode.

GREEN HURTH.—W. Vipond, April 20: In the end south, on No. 3 cross vein, we have more width of vein, and have got some better samples of ore from it the last day or two. On the new east and west vein we have begun this week from the other end to cut through. We have a strong branch in this going off from No. 1 yielding samples of ore. I do not think we have the east and west vein in this yet, but we shall soon come into it. The stope on No. 2 cross vein is yielding 1½ ton of ore per fathom, and the stope on the east branch 16 cwts. We shall clear out the latter in two or three days now. On No. 1 cross vein, in the working between vein and branch, we get some strong crusher work, and the new working on the branch west of this is yielding 1 ton of ore per fathom. The working on stope going north is poor, but paying cost. Nothing new in the cross-cut from adit level. We finished the delivery of a wagon of ore yesterday—7 tons 4 cwts. We shall finish a second wagon to-morrow, and should have managed a third if the continued severe frost had not been so much against us.

GROGWINION.—John Kitto, April 20: Since the date of my last report we have communicated the winze (referred to therein) between the 24 and intermediate levels on No. 4 lode. This has secured the ventilation so much needed, and we have already commenced some good stopes in the roof of the latter level, and the ends driving both east and west are still in very good ore. We have likewise intersected this (No. 4) lode by another cross-cut considerably to the east of the point referred to above, and here also it is rich in ore; we are opening out some excellent stoping ground, and I may add that this is parallel to a run of unproductive ground on No. 3 lode. I am pleased to say that No. 4, in the intermediate level, has so far opened out in a most satisfactory manner. The ends of stopes on No. 3 lode continue much the same as usual, and there is no change that calls for any special remark. The rise in the "long drift," on No. 1 lode, is yielding some ore and looks promising, but the end driving east is at present poor. We have sold since my last, to Messrs. Nevill, Druce, and Co., 100 tons of lead ore, at 13*l.* 13s. per ton, and shall sell another 100 tons on the 30th inst.

GUNNISLAKE (Clitters).—Wm. Skewis, J. C. Seccombe, April 28: We are making good progress in sinking the engine shaft below the 200, also in driving the cross-cut south at the 188, towards Craze's lode, having driven about 20 fms. No change in any of the points of operation since last report. We are getting on as fast as possible with the dressing for the next sampling, which will be on Friday next.

HARWOOD.—W. Tallentire, April 19: Herdship: We are still intersecting strong sparry strings as we drive east. I do not see any other alteration yet. We are pushing forward as fast as possible.

HINGSTON DOWN CONSOLS.—James Richards, April 26: In Bailey's shaft, sinking below the 160, the lode continues worth for the length of the shaft 15*l.* per fathom, and is still a very promising lode.—Bailey's Shaft: In the 160 west the lode continues worth 4 tons, or 15*l.* per fathom. In taking up the bottom to make the levels good west of the point of communication the lode is also worth 4 tons, or 15*l.* per fathom. In the 150 west on the south part of the lode a change for the better has taken place, the lode being now worth 5 tons, or 20*l.* per fathom, with strong indications of a further and speedy improvement. The stope in the back of the 160, west of Rowe's winze, is worth 6 tons, or 18*l.* per fathom. In the stope in the back of the 150 west the lode is also worth 6 tons, or 18*l.* per fathom. In the stope in the lode in the stope in the back of the 140 west yields 5 tons of ore; worth 20*l.* per fathom. In the 120 west on the south part of the lode, the lode is worth 1 ton of ore, or 4*l.* per fathom, and is promising. In the 110 west on the south part of the lode, a cross-course has been intersected, which is not as yet cut through. The pitches continue to yield as usual.

HOLMBUSH.—H. Bennett, April 26: The engine-shaft is cleared to the 80; the men are now engaged in securing the plat and the shaft at this point; we hope in the course of a few days to commence clearing up below this level. The 60 is set to drive west of engine shaft, on the Holmbush lode, by six men, at 7*l.* per fm.; the lode is 18 in. wide, with good stones of copper ore and arsenical muudic. I consider this to be one of the most important points in this mine going west in new ground standing 90 fms. high. The 60 is set to drive south on the lead lode, by six men, at 4*l.* 5s. per fathom; the lode is 2 ft. wide, with spots of lead, but not to value. The 60 is set to drive south on a branch, by four men, at 3*l.* 15s. per fathom; this branch has a promising appearance, with with spot of lead and mundic. The 40 is set to drive east of Miller's shaft, by six men, at 4*l.* 10s. per fathom; worth 25*l.* per fathom. The 20 to drive east of Bennett's shaft, Flap Jack lode, by four men; the lode at this point is large; we have cut into it 5 feet, and no south wall. We have some good stones of arsenical mundic, and a quantity of water is still issuing from the end; this is a very important point, being our most easterly end, and going east under Kit Hill.—Stoping: A stope in the bottom of the 60, west of Miller's shaft, by two men; worth 12*l.* per fathom. No. 1 and 2 stopes, in the back of the 60, west of Miller's shaft, working by 12 men; worth 25*l.* per fathom each. A stope in the back of the 60, west of Miller's shaft, by two men; worth 15*l.* per fathom. Nos. 1, 2, 3, and 4 stopes, in the back of the 60, east of Miller's shaft, worked by 22 men; worth 19*l.* per fathom each on an average. Nos. 5, 6, and 7 stopes, in the back of the 60, east of Miller's shaft, worked by 14 men; worth 25*l.* per fathom. Nos. 1 and 2 stopes in the back of the 90, west of Lord's shaft, worked by 10 men; worth 23*l.* per fathom on an average. Nos. 3, 4, and 5 stopes, in the back of the 60, west of Lord's shaft, worked by 16 men; worth 26*l.* per fathom each. A stope in the back of the 50, east of Miller's shaft, worked by four men; worth 22*l.* per fathom. Nos. 1, 2, and 3 stopes in the back of the 50, west of Miller's shaft, worked by nine men; worth 15*l.* per fathom each on average. Nos. 4 and 5 stopes in the back of the 50, west of Miller's shaft, worked by six men; worth 20*l.* per fathom. A stope in the bottom of the 40 fm. level, east of Miller's shaft, by four men; worth 19*l.* per fathom. A stope in the back of the 40 fm. level, east of Miller's shaft, by six men; worth 23*l.* per fathom. Nos. 1 and 2 stopes in the back of the 40 fm. level, east of Miller's shaft, by two men in each stope; worth 18*l.* per fm. each. In conclusion, I beg to remark that we have cleared Miller's shaft from the 60 to the 70, and are now engaged in clearing the 70 and 50 with all speed; we shall commence to stope these levels very shortly, when our returns will be very much increased. We are pushing on with our skip road at Lord's shaft. I consider our prospects were never better than they are at the present time. All our surface work is being pushed on with the utmost vigour. All the machinery is working well.

KINGSTON CONSOLS.—J. Clynoweth, April 26: Fair progress has been made in driving west of shaft at the 40; the lode large and masterly, with spots of lead and blende. The communication has been made at the 30 with No. 2 winze in bottom of the 18 fm. level. The lode in the 30 is of a very promising character, with every prospect of a speedy improvement. Good progress has been made driving west at the 18. Now we are into a hard bar of ground crossing the lode and causing it to fall off in value. Cross cut south, at the 18, is back to the flookan course running east and west. I shall not be able to give any information as to this before we get through the flookan course. The lode to join flookan north 15 cwt. of lead per fathom. No change to notice in the different stopes in back of the 16 since my last. Our last sampling ore weighed off to day: No. 1 parcel of blende, 22 tons 13 cwts. 2 qrs.; No. 2 ditto, 24 tons 7 cwt., 3 qrs.; No. 1 lead, 8 tons 0 cwts. 2 qrs.; No. 2 ditto, 5 tons 3 cwts.

LADYWELL.—A. Waters, April 26: The 32, south of shaft, is yielding some clinkers of solid ore, and shows a change for the better in the hardness of the ground. The 16 is now being driven towards the ore ground seen in the adit. The pitch in the back of the adit, near the south end, working by six men, at 20s. per ton, continues to look well for lead, and we shall be enabled to sample 20 tons of lead ore next week.

LLANIDLOES.—John Kitto, April 20: As our underground operations during the past month have been confined to the back of the 72, I have no change to refer to elsewhere. The ore in the bargains referred to has varied but little, and the stopes are still yielding a full average quantity. We are now lengthening them eastward, and there is still a great deal of ore ground standing between this and the sole of the 60. I am very anxious to resume, as quickly as possible, the sinking of the engine-shaft below the 72, as I am still as sanguine as ever that our best chances lie in depth, and the improvement in the character of the lode in the 72 more than ever strengthens and confirms this opinion.

LOVELL (THE).—Jos. Prisk, April 23: I am pleased to say we have holed the new shaft to the 30, which is the best thing ever done for the mine; it has laid open a vast amount of tin ground and given good ventilation through the mine, and should the quality of the tinstone improve a little we should pay with the very low price of tin. We consider the prospect of our lode going to the 40 and below is now better than it ever has been before.

MARKE VALLEY.—Wm. George, Wm. Stenlake, April 26: The 148 cross-cut south is being urged on as fast as possible, but without any noticeable change in the ground. The 60 end is being driven on the north part of the lode, which is small, containing a little ore, but not to value. In the 50 west the lode has slightly improved during the week, and will now yield 2½ tons of ore per fathom. In the 40 west the ground is favourable for driving, and the lode will yield 1½ ton of ore per fathom. We are only carrying a part of the lode in driving the 30 west, which is composed chiefly of gossan, intermixed with copper ore of good quality. The lode in the 10 west is yielding about 1 ton of ore per fathom. Our stopes and pitches are yielding their usual quantity of ore.

MELINDWR.—John Kitto, April 20: I have nothing new to report to you from any part of the mine. The stopes continue to yield a little ore, but are not rich, and there is no change worth referring to in the adit level which is being driven east on the south lode.

MELLANBAR.—John Gilbert, April 25: There is no change in the lode in the 30, west of the skip-shaft; it is still producing stones of good copper ore. The lode in the winze in the bottom of the 30, west of shaft, is very much improved, now worth 2 tons of ore per fathom; this winze is down about 1½ fm., and there are 4 fms. more to communicate with the rise in the back of the 67. The lode in the 67, west of shaft, is 5 ft. wide, and worth quite 4 tons of ore per fathom. The lode in the rise in the back of this level is worth 3 tons of ore per fathom; this rise is now up about 11½ fms. The lode in the rise in the back of the 78, west of shaft, is worth 4 tons of ore per fathom; this rise is up 8 fms, and is about 7 fms. in advance of the 67 end. The lode in the 88 fm. level, west of shaft, is still worth 3 tons of ore per fathom. The rise in the back of this level is also worth 3 tons of ore per fathom; this rise is going up to communicate with the winze in the bottom of the 78, which we stated in our last report was suspended in consequence of having cut a stream of water, which prevented the men from sinking. There is no improvement in the ground in Gundry's shaft, but we are using every effort to sink the shaft as fast as possible. The lode in the 78, west of Gundry's shaft, is without change, still worth 2 tons of ore per fathom. The lode in the rise in the back of this level, east of shaft, is worth 4½ tons of very good ore per fathom; this rise is up 3 fms. The lode in the 70, east of Gundry's shaft, is worth 3½ tons of ore per fathom, and the western end is worth 2½ tons per fathom. The lode in the 60, east of shaft, is worth 3 tons of ore per fathom, and the western end is worth 3½ tons of ore per fathom. The shaftmen at the old engine are engaged in cutting ground at the 40 for a balance bob. All our machinery and pitwork are working very satisfactorily, and the water at the old engine is moderately easy—about 10 strokes per minute. We shall commence at once to make a new ore floors at Gundry's, and also to erect our new dressing machinery.

MONYDD GORDDU.—R. Rowse, April 25: The 24 continues in a good course of lead without any change of importance, excepting that we are getting into solid ground, and have the lead in a beautiful lode on each side, with splendid loose rocks of solid lead in the centre. The width of the lead and lode on each side we cannot say, but when we have advanced a fathom or two further shall find out the sides to the full width of the lode to ascertain its full size and value; the portion we can see is worth 6*l.* per fathom. Next week we shall commence driving east on the same course of lead, and now we have a full supply of water shall sample 20 tons in a few days. All is going on well, and other points in the mine much the same as reported last week.

NANT-Y CRIA.—Thos. Goldsworthy, April 24: We are still going on with the repairs of No. 2 level. I find there is a deal yet to do; it must be timbered for nearly the whole length of the level. I have ordered some strong timber for this work, and I expect it on the mine to-morrow; this must be done before we can put the pumping wheel to work. We have finished clearing the floors, and I shall this week have the connecting rods to the pumping wheel repaired and made ready for work. I find the culvert from the crusher-wheel is broken down in the lower flooring; next week I will put some men to clear it. The weather is now fine, and everything is being pushed on with all speed.

NORTH LAXEY.—R. Rowe, April 24: The lode in the shaft sinking below the 136 does not show any particular change; it is about 3 ft. wide, still yielding stones of lead, and presents the best appearance in the south end of the shaft. In the winze sinking below the 121 the lode is 1 ft. wide, and worth from 18 cwts. to 1 ton of lead per fathom. A new trial stope in the roof of the 110 is worth 10 cwts. of lead per fathom, and one lately started in the roof of the 84 is worth from 10 to 15 cwts. per fathom. The stope in the bottom of the 60 is worth from 15 cwts. to 1 ton of lead per fathom, and that in the roof of the level is worth 1 ton per fathom. The 50 and 49 stopes are worth on an average about ½ ton per fathom. In going carefully through the mine to day I am better satisfied with the prospects than for many years past; the improvement in the stopes are mainly due to the side vein, and which we have now found in the 60, and from a close examination to-day of the 70 and 80 I have much confidence in tracing down by cross cutting the same productive lode.

OLD TREBURGETT.—Wm. Hancock, W. T. Bryant, April 26: The 102, to drive south of engine shaft, on the lode, by six men, the month, at 7*l.* 10s. per fathom; lode 5 ft. wide, worth about 5*l.* per fathom, and of an exceedingly good appearance to further improve. The stope in the back of the level, by four men, the month, at 55s. per fathom; worth 5*l.* per fathom. In the 90 south, driving on the east part of the lode, contract not out. A pare of six men are stripping down the west part of the lode towards the end and stoping the back at 3*l.* 15s. per fathom, which is 4 ft. wide, composed of spathose iron, capel, mundic, and silver-lead; a most promising lode, worth about 10*l.* per fathom. No. 2 winze, to sink below the level on the west part of the lode, by two men, the month, at 7*l.* 10s.

per fathom; worth about 7*l.* per fathom. No. 1 stope in back of the 80, on east part, by four men, the month, at 50*s.* per fathom, and to be paid for taking down west part; worth altogether about 15*l.* per fathom. No. 2 ditto, by four men, the month, at 45*s.* per fathom; worth 9*l.* per fathom. No. 3 ditto, by four men, the month, at 3*l.* 10*s.* per fathom; worth fully 50*l.* per fathom. No. 4 winze under the level we have tried at again, but water still too busy. The 70, to drive south of the shaft, by two men, the month, at 6*l.* per fathom; lode at present small. The cross-cut east at this level is for the present suspended until the stopes are worked up to the 80 to deposit the attle in. Masey's shaft, to sink below the 40, by six men, the month, at 9*l.* per fathom, or communicate to tribute pitch; lode producing saving work for the dressing-floors. The 40, to drive south of Masey's 50 ft. by six men, the month, at 5*l.* per fathom; producing good silver-lead work. We are now in full swing here, and hope shortly to have to report a good improvement, if not we shall be much disappointed; the ground is of the proper character, and it is stated to be a good lode left off by the former workers in the bottom of the 20 and old engine shaft, which is some 30 fms. south. In a few days we shall also commence rising from the back of the 60, against Masey's shaft, by four men; we have also set all the attle to wheel back in the old workings from this part of the mine, instead of drawing it to surface, which will effect a saving in many ways. There are 19 men on tribute in different parts of the mine; four at 10*l.* per ton, six at 13*l.* per ton, and six at 18*l.* per ton for No. 1 quality dressed ore, and 8*l.* for No. 2 quality. The machinery is all in pretty good trim.

PARYS MOUNTAIN.—J. Mitchell, April 26: The ground in the 90 cross-cut south has got very hard after passing through the small branch of ore referred to in my last. We hope, however, this may be only a bar of stiff ground, and will work out again shortly. All other points continue much the same. It will be setting day on Saturday next.

PATELEY BRIDGE.—C. Williams, April 26: The 30 east, on Rake vein, still maintains its very favourable appearance and character, being from 5 to 6 ft. wide, filled with gossan, lumps of galena coated with carbonate of lead, and as we approach the perpendicular of the great deposit that went down under the 20 the bearing part is becoming more regular, and better defined, ground easy to drive. The 30 west is in a fine masterly vein of several fathoms in width; the bearing part, which we are following in the drivage, is 6 ft. wide, consisting of nice-looking spar, gossan, carbonate of lead, and strings of solid ore, and I have no hesitation in pronouncing it one of the finest-looking veins that can be found; distance opened, east and west, 16 fathoms. The Lumb vein, in the south cross-cut in the 20 west, is producing good ore for several feet in width; but owing to the very soft nature of the ground, and the great rush of water coming out of it, we have not been able to proceed so well as I should wish, and have been compelled to drive the drivage a little north, so as to strike the vein at another point, and when the water is sufficiently drained for working we shall have two points to work at. The metal bargain in new vein behind this cross cut is producing a fair quantity of ore, and the vein is looking strong and healthy, and likely to become more productive. Fielding's vein in the 20 north-west is 2 ft. wide, and yielding 1 ton of ore per fathom. The Sun vein going east from the bottom of new shaft, under Gilfield level, is from 5 to 6 ft. wide, composed of spar and quartz, with strong patches and strings of ore, an exceedingly fine looking vein, and an early improvement may be expected.

PENDYN-DREA CONSOLIDATED.—W. Tregay, Wm. Prideaux, John Pope, April 26: Sump: In the 140 east winze the lode here (Martin's) is worth 35*l.* per fathom. In the 130 west end the lode here (Martin's) is worth 20*l.* per fathom. —Cardozo's: In the 100 fm. level west end the lode here (north) is worth 25*l.* per fathom. In the 90 fm. level west end the lode here (north) is worth 1*l.* per fathom. In the 90 west rise the lode here (north) is worth 70*l.* per fathom. In the 80 west end the lode here (north) is worth 8*l.* per fathom. In the 60 west end the lode here (north) is worth 15*l.* per fathom. In the 55 west end the lode here (north) is worth 20*l.* per fathom. In the 55 west rise the lode here (north) is worth 12*l.* per fathom. We sold on Saturday, 21st inst., at Carvedras, 9 tons 4 cwts. 0 qrs. 15 lbs. of black tin, at 42*l.* 5*s.* per ton—388*l.* 19*s.* 8*d.* No other changes to report.

PENHALLS.—S. Bennetts, P. Vian, April 21: The lode in the 70 east is being cut off by the approach of two faults; this will leave the end for some fathoms without any lode. The 60 east is worth 7*l.* per fathom. The 48 west is worth 10*l.* per fathom. The 45 west is worth 4*l.* per fathom, and the 30 east, on the north lode, is worth 12*l.* per fathom. The various other points of operation remain much as for some time past.

PENNERLEY.—W. T. Harris, J. Delbridge, April 24: The lode in the 130 east is 2 ft. wide, of carbonate of lime, and a slight mixture of lead ore; we are pushing forward this level believing in an improvement taking place shortly. The cross-cut at the 120 to intersect the Warm Water lode is making fair progress; an important feature has just presented itself, a branch of carbonate of lime containing good cubes of lead ore, and dipping towards the lode, and eviden ly a feeder to it; this we consider an unmistakable sign of a rich course of ore being found when the lode is intersected, which we expect to do next week. The lode in this winze sinking below the 80, on Warm Water lode, maintains its value—3½ tons per fathom. No. 1 stope is worth 2 tons, and No. 2 stope 1½ ton per fathom. No. 3 stopes in roof of this level will average 1½ ton per fathom.—Potter's Pit: The lode in the 55, west on Big Ore, is at present yielding no lead to value, but we look for an improvement as approaching junction with Wilson's lode. The lode in the winze sinking below the 45, on Wilson's lode, is full 4 ft. wide, easy for progress, and producing good stones of ore; from the congenial character and composition of this lode there is great encouragement for expecting profitable results attending its development. For this object the 55 is being driven west towards the junction. —Tribute Department: There are 12 pitches at work, yielding their usual quantity of ore.

PLYNLIMMON.—J. Garland, April 26: In Jones's winze, sinking below the 24, I am pleased in being able to report an important increase in the productiveness of the lode, which now produces full ½ ton of lead ore per fathom, with every prospect of a further improvement; the water in this winze is rather quick, nevertheless fair progress is being made. In Herbert's winze, sinking below the same level, the lode has an increased underlie north, but still produces 1 ton of lead ore per fathom; when the lode falls into its usual underlie again an improvement may be expected. The stopes over the 24, east of new winze, maintain their produce as given last week. I am sorry that we are still waiting for the pumping rope. I have again written to push on delivery as soon as possible. Drawing and dressing with all other operations are being pushed on as fast as possible.

PRINCE OF WALES.—J. Andrews, April 25: The following was our setting on Saturday. To drive the 77 end west of cross course by six men, at 8*l.* 10*s.* per fathom; lode 2½ ft. wide, composed of quartz, capel, mundic, and a little copper ore. To drive the 55 west by six men, at 7*l.* per fathom; lode 3 ft. wide, yielding more mundic and some good quality copper ore, but not enough to value. To stope the bottom of the 55 by six men, at 70*s.* per fathom; lode 3½ ft. wide, worth 15*l.* per fathom.

RED ROCK.—John Kitto, April 20: We are making fair progress with the sinking of the engine-shaft below the 60, and shall push it down for a new level with all the force that can practically be brought to bear upon it. The 60 driving west has yielded some nice ore during the month, and the lode has much improved in it: general character, but there is no improvement so far in the same level east ward. We have been cross-cutting the lode in the 10 east, and have discovered very good ore. The lode appears to be left standing to the south of the old level, and should it prove so it will be important. We are getting good lead stuff from here now, and the prospects are most encouraging.

ROMAN GRAVELS.—A. Waters, April 26: The 106 north is still being driven by the side of the lode. The 106 south is worth 1 ton per fathom. The winze below the 95, north of shaft, is worth 3 tons per fathom. The winze below the same level south is also worth 3 tons per fathom. The new south engine shaft is going down slowly, owing to the late influx of water. The 95 south is worth 2½ tons per fathom. The 80, south of ditto, is in a strong sparry lode, yielding stones of ore. The 65 south is through the twitch, and is now worth 1 ton per fathom, and improving. Matthew's winze below the 65 is opening a good section of ground for stopes. Thomas's winze south of ditto is worth 3 tons per fathom. The 50 end south is worth 2 tons per fathom. The stopes in the Roman vein are as last reported. The middle level north of Powell's winze below the 65 is worth 2½ tons per fathom.

ROOKHOPE.—James Blenkiron, April 25: Very little progress has been made during the last month with the dressing floors, &c., at high shaft top. We have not been able to cart stones on account of the ground being so wet and soft. On Monday and Tuesday last when I was at the mines all was covered with snow, and outside work stopped entirely. Fair progress has been made with the dam or reservoir considering the weather. Two or three weeks of dry weather would be a great advantage to us. The gin shaft is completed, and ready for drawing from the 25 as soon as the signals are fixed. Wire for same came to hand yesterday. The men rising from the 42 underneath the gin shaft have only completed 6 fms. 2½ ft. during the last month; there remains yet about 8 fms. to rise to make the communication between the two levels. It was so stormy when I was over that I could not note definitely the progress made. I purpose going over again to the mines next week to push matters forward all I can. I trust we shall be ready to sample 50 tons of ore by the end of next week. I will forward you the cost sheet in due course. I had not got the bills, &c., all right when I was over.

ST. HARMON.—John Kitto, April 20: There has been no change of any importance in the 60 either east or west of engine shaft since the date of my last report. We shall drive on westward for another month, and then cross cut north, as I am of opinion that the main part of the lode is standing on that side. The 55 ends, both east and west, have been yielding some ore for the greater part of the past month, and the lode presents a very kindly appearance. I am decidedly of opinion that the strings of ore we have been having for some time past in these levels will lead us on to something much more important. There is no change worth noticing in the 48 cross-cut south, or in any other part of the mine, but everything is going on regularly, and very fair progress is being made.

SAINT PATRICK.—Wm. Francis, April 25: The cross-course is still widening in the 120 yard cross-cut north, with good walls and a fine matrix of various compounds; it is now 3 ft. 6 in. wide. The chert driving in the 60 yard north cross-cut is being driven at 50*s.* per fathom, and promises speedy success in opening a new discovery.

SOUTH CONDURROW.—W. Rich, W. Williams, H. Abraham, April 24: The driving gear at the eastern side of the stamps has broken, which has thrown 48 heads of stamps idle; we hope, however, to have this replaced with new by the end of the week. We have reached the lode in the 60 cross-cut south, and shall see more of it in a few days. There is no other material alteration in the mine since our report of last week.

SOUTH ROMAN GRAVELS.—J. W. Powning, April 26: Shelfield: We have intersected the lode in the cross-cut driving north from shaft at the 45, and have cut into it about 5 ft., which is composed of carbonate of lime and soft stone. There are yet no signs of footwall, but every appearance of the lode being a very wide one. The forebreast gets wetter every foot we advance. I calculate the main part of the lode is still before us, and will, therefore, write you as to any change that may take place as we go forward.

SOUTH TOLCARNE.—W. Rich, W. Hambly, April 23: The lode in the 50 east carries a little tin and copper, and letting out more water than usual; the ground also is easier. The lode in the trial shaft, that we consider to be the South Condurrow lode, appears to be getting better defined in depth.

SOUTH CWMYSTWITH.—John Kitto, April 20: The winze sinking below the upper level, on No. 2 lode, and referred to in my last report, has continued to yield splendid ore during the whole of the past month, and there is still a very good lode in the bottom of the same. The intermediate level cross-cut has got through the lode, which at this point is 46 ft. wide, the last 6 ft. being good orey stuff. The winze referred to above is down about 9 fms., and we have about 2½ fms. further to sink to communicate with the intermediate level. This will take us about three weeks, and then we shall be in a position to commence stoping as soon ere ground as soon as we like. Pengenlan lode, in the eastern adit level, has greatly improved in appearances, and we are daily expecting to get another run of ore ground. No. 1 lode, in the western adit level, is looking better than I have ever seen it look before, and we have commenced to cross cut it to prove its size and character. There is nothing new in any of the other levels. We are cutting ground, raising stone for buildings, and preparing for laying out dressing floors, and shall push on with the erections as quickly as possible, particularly if we can have a little fine weather.

TALYBONT.—A. Francis, April 23: Capt. Absalom Francis has lately been instructed especially to inspect this mine, and the following is his report:—Having very carefully examined this property I beg to hand you the following report report thereon. I presume that an historical record of what has been done is not so much an object with you as for me to give you my advice as to what I would recommend being done in the future, and this, I fancy, would not prove a difficulty to anyone that has been acquainted with the mines of Cardiganshire during the past 37 years. At the time I allude to there seemed to be such a lull in mining as had often taken place at intervals for periods varying from 100 to 150 years. The process that mining must have been conducted on previous to the systematical operations, when crushing machinery also for drawing and winding the ore from the mine in this locality will be obvious when I state as a matter of fact that when Capt. Matthew Francis (my late brother) was called on to take the local management of the Lisburne Mines, and who purchased Goginan for 30*l.*, there were no mills erected for crushing, the produce of the veins varying from 6 to 100 ft. in width, beyond a diameter of 15 in., and the power applied to them was on the same scale. The richest mines worked by the old miners must have been those whose courses of rich ore were found near the surface, and continued down without interruption, so as to be followed without the absolute necessity of power beyond working hands, and I may say also, as a truism, that no sufficient power has been thought of for working these mines previous to the time here mentioned, and it would seem to me that the gentlemen who were connected with them, "the best miners of the century" did not seem to hold a proper idea as to what the lodes of this country are capable of producing. You who are in the Talybont grant seem to me to have very many such veins, and they are so placed that the trail of them may be proved for a small amount of money. Your workings now being carried forward will prove what I have asserted. Your opening on the north and south lode at the western point of your grant will intersect all the lodes running through your sett, and will unwater all the old workings to the east of what has been made; and, as before stated, must have proved very rich. I have had something to do with this property for many years, and I remember raising a fine stone of ore in a solid lump which weighed 35 cwts., which was sent to the Exhibition of 1851. I consider you will act judiciously if you carry through the driving on the north and south lode through the sett, and leave your discoveries, which you are certain to make at the junction of the lodes, until you have opened out the mine. I am convinced that you will have a property that will not fail in giving an immense percentage on the capital required for its development.

TANKERVILLE.—A. Waters, April 26: Watson's engine-shaft is 9 fms. 5 ft. below the 180; ground as for some time past. The 180 west, now 16 fms. from the shaft, is in a strong, fine looking lode, worth 3 tons per fathom. The 180 east, now 10 fms. from the shaft, is to-day into a cavity with rich ore stuff; highly crystallised on either side, and worth 4 tons per fathom. This is quite a new feature to see a cavity and rich lode so far east of shaft. The ore ground is now double the length of anything seen in the upper levels. The stopes throughout the mine yielding ore as for the last month or two.

TEESDALE.—April 20: North End Working: The vein that we are now driving on is worth 1 ton of lead ore per fathom. We have had to leave the part of the vein that has branched off to the east side, as the two veins were too far apart for working from one level. I consider the part of the vein that we are leaving for the present the stronger vein, and worth 1¼ ton of lead ore per fathom.—South End: The vein here is working at a value of 16 cwts. of lead ore per fathom, at a cost of 44*s.* per fathom.—South Level: The men have finished taking out the vein that we had undercut in this level, and will now start to send out the bouse to the dressing-floors.—Hopkins' Level: Two men are stoping out the vein, worth 8 cwts. per fathom, at a cost of 34*s.* per fathom.—Surface Work: We have been short of water this week for keeping our mill at full work; the millwrights have put in a pair of new rollers, and done some other jobs to the machinery, when the water was short.

TREBEIGH CONSOLS.—J. Gifford, April 26: Ward's engine-shaft is down 7 ft. below the 30; the ground is favourable for progress, and the branch yielding good stones of lead and blende ores from the bottom. The cross cut north from the 30 is in 7 fms.: the ground is still favourable for progress.

TRELEIGH WOOD.—W. Goldsworthy, April 26: There is no change to notice in either of the ends since our report of last week. The pitches are looking better on the whole. The engines and machinery are in good order, and working well.

VALE OF CONWAY.—J. Roberts, April 26: We are making fair progress in the level on the east and west lodes. We have to save the whole, except what we can pick out with the hand, for the dressing-floors. We shall soon accumulate a large pile of stuff for treatment when the crusher is ready.—Rabbit Lode: We are clearing the ground here, and will let you know the value of the lode when we have taken it down.

VAN CONSOLS.—James Roach, April 23: Murray's engine-shaft is now sunk upwards of 7 fms. under the 40; all is, therefore, going well. We shall soon be in a position to cross-cut the lode at a 50 fm. level. The winze sinking under the 40 fm. level, west of Murray's shaft, continues the same as when last reported; yielding 10 to 15 cwts. of lead per fathom, and shows evidences of improvement. In the 40, east of Gundry's, there are strong spots of lead. The stope in the roof of the 40 fm. level, west of winze, is just as when described last week.

WEST CHIVERTON.—Capt. Southey, April 26: We have completed Glubb's shaft to the 150, and have now turned around to make arrangements to sink Batters' shaft below the 140. I have postponed reporting until next week, so that I may be able to do so more fully on the quality of the lode going down in the shaft below the 160. Everything going on satisfactorily.

WEST CRAVEN MOOR.—David Williams, April 26: I am glad to say the improvement in Blackhill level holds good. The new shaft from surface, being sunk some 17 fms. in advance of the forebreast of the Blackhill level, will be down 4 fms. by Saturday next. I have promised the men a bonus of 10*s.* each if they can complete their bargain a week under four months. The west shaft will be down 1 fm. below the 20 this week. I will let 10 fms. to sink, and give a bonus of 5*l.* if sunk in three months. I have also commenced a winze on No. 2 lode, opposite east shaft, and will let 5 fms. to begin, and a bonus of 10*s.* per man if completed within a given time; we must deepen our mine during the summer months, that being a great saving of both time and money. You will be glad to know that No. 2 lode, in the 20 east, has further improved this week. I broke yesterday a solid stone of ore from this end, about 2 cwts.

WEST GODOLPHIN.—John Pope, April 21: Caunter: Pressure shaft sinking below the 60, by 12 men; the lode is 8 ft. wide, producing tin, worth 70*l.* for the length of the shaft; distance sunk, 9 fms. 9 ft.—Wilson's Lode: To stope the back of the 60 west, by four men; lode 8 ft. wide, worth 15*l.* per fathom for tin. Ditto, by six men; the lode is 4 ft. wide, worth 10*l.* per fathom for tin. To stope the bottom of the 50 west, by six men; the lode is 12 ft. wide, worth 20*l.* per fathom for tin and copper. Ditto, by six men; the lode is 8 ft. wide, worth 10*l.* per fathom for tin and copper. Ditto, by six men; the lode is 9 ft. wide, worth 20*l.* per fathom for tin and copper. Ditto, by six men; lode 7 ft. wide, worth 10*l.* per fathom for tin. To stope the back of the 50 west, by two men and two boys: the lode is 3 ft. wide, worth 5*l.* per fathom for tin. Ditto, by two men; the lode is 3 ft. wide, worth 4*l.* per fathom for tin. Ditto, by three men and three boys; the lode is 2 ft. 6 in. wide, worth 5*l.* per fathom for tin. To drive the 50 east, by two men; lode 1 ft. wide, producing low-price tinstuff. To sink Boulton's shaft below the 50, by six men; lode 1 ft. 8 in. wide, producing low-price tinstuff; distance sunk, 2 fms. 4 in. To stope the bottom of the 50 east, by six men; lode 8 ft. wide, worth 20*l.* per fathom for tin and copper. Ditto, by nine men; lode 12 ft. wide, worth 30*l.* per fathom for tin and copper. To stope the bottom of the 40 east, by six men; lode 6 ft. wide, worth 10*l.* per fathom for tin. To stope the back of the 40 east, by four men; the lode is 3 ft. wide, worth 4*l.* per fathom for tin. To drive the deep adit level west, by two men; the lode is 3 ft. 6 in. wide, producing low-price tinstuff; distance driven, 7 fathoms 5 feet. To drive the 50 fathom level west, on Pink lode, by two men; no lode has been taken down for the month, but we shall have it taken down next week. We have suspended driving our levels west on Wilson's lode, for fear of cutting more water, which would again throw in the water in the bottom of the mine. I am pleased to be enabled to say, that we have the water out at present, and the shaft being sunk with a full pare of men. The engine is working 8¼ strokes per minute. By reason of the water being in the bottom of mine for so long a time it has made very much against our sales of tin for last month and this, but I am hoping that we shall be able to have our regular returns for the future. We have commenced to take out the engine, and I expect to begin to build the engine house some day next week, which shall be done as fast as possible. We shall get the additional 8-head stamps-axle on the horses to-day. Next week we shall be fixing the frames for the stamps-heads and lifters to work in, and the different things connected with it.

— John Pope, April 25: There is no change in the mine worthy of notice since my last report. Everything is being pushed on as fast as possible underground and at surface. I am hoping to set the engine-house to build to-day.

WEST GOGINAN.—J. Kitto, April 20: The engine-shaft is now down about 6 fathoms below the 26 fm. level, but the lode is still poor in the bottom of the same, and there can be no doubt that we are now passing through the same run of unproductive ground that we had in all the levels above a little to the west of the shaft. The 30 fm. level end, driving west, has improved for lead, and appears to be getting into the same run of ore that we have had in the 12 and 24 fm. levels above. The winze sinking below the 24, and a few fathoms in advance of the 26 end, is yielding saving stuff for lead; the lode is looking strong and kindly.

WEST TANKERVILLE.—Arthur Waters, April 26: The boundary shaft is now about 10 fathoms below the 75, and will be deep enough for the next level by the end of the present working month. The 75 south is within about 8 ft. of holing to the winze from the 63; the lode in the present end has improved, and is worth 1 ton per fathom. The 63, south of shaft, is going forward in a kindly orey lode. The stopes in back of the 63 and 50 are worth 1½ to 2 tons per fathom.

WEST TRESAVEAN.—Geo. Stevens, April 24: During the past week the lode and elvan in the stope west of Michell's shaft has improved in value for tin, and the discovery made some few weeks since still holds good for tin. We shall at once commence east of the cross-course to find the lode and elvan, but it will take us a little time as the cross-course is large.

WEST WYE VALLEY.—John Kitto, April 21: We have got on very fairly with the sinking of Brookes' shaft during the past month, and the part of the lode we are carrying has improved very much, and yielded very good ore up to Tuesday last, when a cross branch came in and disordered the lode to some extent, and since then it has not been so productive. I do not think, however, that this will continue long. The 40, both east and west of the main engine shaft, has improved in character since my last report, and the former has yielded some good ore. We are now getting very near to one of the bunches that we had in the levels above. We are clearing out ground for wheel-pit and crusher-house, and shall commence with and carry on the erections as quickly as possible, but the weather for all surface operations has been, and still continues, very unfavourable.

WHEAL AGAR.—E. Moyle, April 25: The engine shaft is sunk 5 fms. 3 ft. under the 195, the lode still maintaining its size and value. The winze sinking below the 195 is improving, worth 30*l.* per fathom, and now down 2 fms. 3 ft. The 195 east is being driven by nine men, the lode yielding rich stones of tin and copper—a promising lode. The 150 cross-cut north (long suspended) has been resumed driving by one man and one boy, and is evidently approaching a lode from the change in the ground, being composed of fluor spar, mundic, and shale.—New Shaft: This shaft is down 40 fms. from surface. We hope to hole to the 25 in about six weeks. We have men sinking below the 48, also below the 80, thus hoping to arrive at the 100 at no distant day. The character of the killas about this shaft is most beautiful for the production of copper. The materials bought at the Crenver sale are nearly all home. We shall proceed with their erection as soon as possible.

WHEAL CREBOR.—J. Andrews, April 23: The following was our setting on Saturday:—To drive the 108 east, by four men, at 6*l.* per fathom; the part of the lode we are carrying is 2 ft. wide, worth 5*l.* per fathom, and looking promising to improve. To stope the back of the 108, by six men, at 5*l.* per fathom; worth 20*l.* per fathom. To drive the 79 east, by two men, at 7*l.* per fathom. Here we are carrying 3 ft. of the south part of the lode, which is composed chiefly of quartz, capel, and mundic. The drive the 48 east, by four men, at 9*l.* per fathom; the lode is 8 ft. wide, 2 ft. of the north part of which is worth 6*l.* per fathom, with every appearance of an early improvement. To stope the bottom of the 48, by six men, at 6*l.* per fathom; the lode is 4 ft. wide, and worth 10*l.* per fathom. I have not set the 120 end to drive east, as we have a piece of ground to stope down from the bottom of the winze, which will occupy from a week to 10 days, after which the driving of the 120 east will be resumed, and six men will commence stoping the back of the 120.

WHEAL GRENVILLE.—T. Hodge, April 23: Setting Report: To drive the 160 east end, by six men, at 9*l.* per fathom; The lode is worth for tin 8*l.* per fathom. To stope the bottom of the 150 east, by four men, at 5*s.* per ton, worth 7*l.* per fm. To stope the back of the 150 east, by four men, at 5*s.* per ton, worth 8*l.* per fm. The 150 east end is driving by eight men, at 10*l.* per fathom; contract not out; the lode worth fully 10*l.* per fathom. To stope the back of the 150 west level, by four men, at 5*s.* 3*d.* per ton; worth 8*l.* per fathom. To drive the 130 east end, by two men, at 9*l.* per fathom; the lode here looks promising, worth 8*l.* per fathom. To drive the 130 west end, by two men, at 8*l.* per fathom; worth 7*l.* per fathom. To stope the bottom of the 130 east level, by six men, at 4*s.* 6*s.* per ton; lode worth 8*l.* per fathom. To stope the back of the 130 east level, by ten men, at 6*s.* 3*d.* per ton, worth 11*l.* per fathom. To stope the back of the 130, east of Davies's stope, by eight men, at 5*s.* per fathom; worth 8*l.* per fathom.—North Shaft: The north shaft to cut down and make secure from the 80 to the 100, per bargain, by nine men, at 4 *l.* Four men are cutting ground for the fend-off bob at the 50. The 130 to drive east, by two men, at 7*l.* 10*s.* per fathom; worth 7*l.* 10*s.* per fathom. To stope the back of the 130 east level, by six men, at 5*s.* 6*d.* per ton, worth 8*l.* per fathom. To stope the bottom of the 130 east level by four men, at 4*s.* 3*l.* per ton; worth 10*l.* per fathom. The sumpmen will be placed to sink for tip plat below the 140 in a day or two. All surface work is being pushed forward. —Tribute: Three pitches set to six men, at 13*s.* 4*l.* in 1*l.* The pitches on the old tin lode are pretty nearly exhausted. The great lode is opening out pretty well, and from which we are raising fair quantities of tin.

WHEAL GRENVILLE.—T. Hodge, April 26: I have nothing new here, except that the 150 east end is looking pretty well; worth about 14*l.* per fathom. All surface work is going on regularly. I will send send you the plans filled up in a day or two.

WHEAL KITTY (St. Agnes).—S. Davey, Rich. Harris, April 21: New Shaft—Pryor's Lode: In this shaft, sinking below the 134, the ground is much the same in character and composition as reported in our last; the men are making good progress with the sinking. The lode in the 154 driving east is larger; it is also improved in appearance for the greater production of tin. The branch in the 154, driving west of shaft, is letting out more water, and from indications we anticipate soon reaching the main part of the lode. The lode in the 142, driving west of shaft, is worth for tin 7*l.* per fathom. The lode in the 142, driving east of shaft, is 2 ft. wide, and worth for tin 8*l.* per fathom. The lode in the 130, driving west of shaft, is 2½ ft. wide, and worth for tin 10*l.* per fathom. The lode in the 118, driving west of shaft, is 2 ft. wide, and worth for tin 8*l.* per fathom. The lode in the 94, driving west of shaft, is 1½ ft. wide, and worth for tin 6*l.* per fathom. The lode in the 65, driving west of shaft, is 2 ft. wide, and worth for tin 7*l.* per fathom.—Old Lode: In the 100, driving west of engine-shaft, the lode is worth for tin 6*l.* per fathom. In the 90, east of engine-shaft, the lode is worth for tin 5*l.* per fathom.

WHEAL NEWTON.—Henry Bennett, April 26: The 40, east of Cook's shaft, continues to open up well, yielding some very rich silver ore. The 40 end, west of Cook's shaft, presents a very kindly appearance, producing saving work for silver. The stope in the back of the 40 and 30 on this lode is without any alteration to notice. In driving the cross-cut north and west of Cook's shaft to intersect the silver lode we have cut a branch of the Harrowbarrow lode about 10 in. wide, very rich for arsenical mundic mixed with copper ore; we hope shortly to cut the silver lode at this point. All the other bargains are without material change. Capt. Simmons, the Duchy agent, was underground here yesterday, and inspected the silver lode; he says it is the best discovery he has ever seen in the district.

WHEAL UNY.—W. Rich, Matthew Rogers, Joseph Rich, April 21: The mine is drained to the bottom, and Hind's engine shaft is in course of sinking below the 160. The 160 end east is worth 6*l.* per fathom. The rise in the 160 west is worth 6*l.* per fathom. The 150 rise towards King's shaft, is worth 8*l.* per fathom. The 140 end east is worth 10*l.* per fathom. The 130 east is worth 6*l.* per fathom. The rise in the 60 west is worth 8*l.* per fathom.

WYE VALLEY.—John Kitto, April 21: We have resumed the sinking of the main engine shaft below the 34, and fair progress is being made. The lodge has been completed, and the shaft timbered and made ready for drawing. The 22 end driving east has continued to yield pretty good ore ever since the date of my last report, and we have commenced a stope in roof of same, which is also looking pretty well. The lode at these two points varies in produce from 12 to 25 cwts. to the fathom. The stopes between the 10 and 22 fm. levels are not so productive as they have been. We are making very good progress in rising towards Tippett's shaft, and if things continue to go well we shall not be long in effecting a communication. We are pushing every point of importance as vigorously as possible, and, in my opinion, nothing further can be done at present to advance the interests of the company. We have about 30 tons of dressed ore in the bin ready for market.

Capt. Burton, whose mission to Moilah was to verify the existence of gold and silver mines reported by the natives, has confirmed the existence of such mines at Mugnah, at the foot of the mountain range, two days' march from the Gulf of Akabah, where he found the remains of old furnaces and also many ancient inscriptions, an aqueduct, and the remains of a large walled city, probably the capital of the ancient Media.

LANZI MINES, TUSCANY—SPECIAL REPORT.

April 16.—I have no change to report in the mine from last week. All the drives are turning out about the same for ores, both lead and blende. I have put to pile 7 tons of best ore this week from hand dressing; our pile of best ore would yield about 60 per cent. of metal, as near as I can judge. The first 25 tons put to pile I had a sample taken, from which gave 47 per cent. of metallic lead, besides zinc. Besides the first class ore put to pile each week, I put aside about the same quantity of second-class ore, which contains 35 per cent. or more of metals, and also another pile of fine stuff which passes through the screen, containing 30 per cent. and upwards, and besides this there is another pile, twice the quantity, of third-class ore of 20 per cent. metal; this would make the total about 35 tons a week. The small cargo of ore sent to Messrs. Dillwyn and Co., Swansea, was broken out of the quarry.—JAMES SIMKIN.

April 19.—Lead Quarry Lode: No. 1 cross cut in the lode is just the same, opening paying ground. No 4 drive is very near the marble wall, opening mineral ground. No. 6 drive is improved for blende and lead, opening very good ground in the bottom part of the drive. No. 1 stope, south side of No. 1 cross-cut, is in good mineral ground. No. 4 stope is in paying ground.—King's Lode: The water continues in the level and bottom of the shaft; we are preparing the shaft for hauling and clearing out the foundation for the winding engine house.—J. BOYNS.

April 23.—The work at the Lead Mine is progressing satisfactorily this week. All the drives continue to yield a good average quantity of ore, both lead and blende, and none but what is in paying ground. No. 6 still maintains its character, and quite equal to last week. No. 1 stope, south side of No. 1 cross cut, is improving for lead and blende as it approaches the starting point of No. 6 drive, and I believe in a short time will be equal to it. The shaft at King's lode is being squared down, and also getting out the foundation for the engine. On Thursday, in crossing over Monti Calvi, I discovered an ancient shaft that I had not seen before. Yesterday I got ropes and went down; I found it to be about 40 yards deep; it is a great masterly lode, capped over with 15 yards thick of marble, and from that to the bottom it is completely burrowed, with holes running in every direction, but none extending more than 20 yards in length. It is evident the works are very ancient, and probably done by the Etruscans; in some places a carbonate of lime had formed upon the walls, 12 in. thick. I broke off several stones of ore, and brought them to surface, and pounded up one of them and washed it. I found a heavy mineral, which I believe to be tin; Capt. Boyns also thinks so. I showed it to Mr. M. Boundy: he thinks there is little doubt of it being tin. I shall send a sample to Pisa to morrow to be tested; if it proves to be tin this will still further enhance the value of the Lanzi Mines.—JAMES SIMKIN.

It may seem strange that the shaft referred to in what is said to be a "great masterly lode" has not been seen before by the managers at the mines, neither the existence of this lode known; but it must be remembered that the property is of great extent (about 1000 acres), and portions of it covered by brushwood. It seems clear that another extraordinary lode has been discovered; but although three mining men at the mines (one of them an experienced tin and copper miner who had for many years the management of dressing these ores in Cornwall) all believe it to be a large tin lode, we do not rely on it until it has been proved by analysing.

ESGAIR-HIR AND ESGAIR-FFRAITH—SPECIAL REPORT.

Some fine specimens of silver-lead and copper ores from these mines may now be seen at 48 and 49, Palmerston Buildings, London. The following reports have been recently made by mining engineers intimately acquainted with the properties:—

ESGAIR-HIR (Silver-Lead).—J. Hughes, April 23: I was captain of this mine for two years, during which time we worked at a profit of upwards of 1000*l.* per month; the lode is one of the strongest and finest ever discovered. It runs east and west, and underlies north. The enormous size of the lode may be imagined when I state that in some places it opens out to a width of 30 yards. I have from this lode cut steel-grained silver-lead 4 ft. wide, solid. I have seen most of the mines in Cardiganshire, but nothing equal to Esgair-hir. I have a very high opinion of the bog in front of the mine barracks, and I am aware that the ore dips towards that swampy spot. I would advise the sinking of Shaft Goch 10 fathoms, and then drive a level east and west, also make a communication between this shaft and the Blue shaft. If this is done it will open exceedingly rich courses of ore. From the adit level down to the 30 I have not the least doubt but that there are some thousands of tons of silver-lead standing in the sides. I feel sure that a new adit level from the western boundary to the Blue shaft would open the mine richer than ever, and would also make it a lasting success.

ESGAIR-FFRAITH (Copper).—H. Boundy, April 23: I have known this mine for the last 20 years, and I had the sole underground management for five years. I shall in this report confine myself to the eastern part, for two reasons—I believe it to be the most important part of the extensive sett, and it is the part that is now being operated upon. The eastern shaft is sunk from surface a distance of 25 fathoms. At 15 fathoms from surface an adit level is extended east 82 fathoms, in the driving of which we met with five immensely rich courses of copper ore. The richness of these courses of ore may be understood from the fact of our extracting it in masses of upwards of a ton at a time. The average value of this ore was 20*l.* per ton. From the adit shaft is sunk a further distance of 10 fathoms, or 25 fathoms from surface, and a level east was commenced, but not driven sufficiently far to cut into the courses of ore met with in the adit above. The present

operations will achieve this object, and will, I do not hesitate to say, result in enormous profits. I consider you are acting wisely in sinking the shaft deeper, and then to drive east and west. There cannot be the least doubt that the deeper this lode is opened up the richer the copper will be found. I have never seen such a strong copper lode, or one so beautifully composed; in fact, the lode is so great that when explored to a greater depth it is impossible to place a limit to it is value.

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The Mining Market: Prices of Metals, Ores, &c.

METAL MARKET—LONDON, APRIL 27, 1877.

IRON.	£ s. d.	£ s. d.
Pig, GMB, f.o.b., Clyde..	2 15 0-	—
,, Scotch, all No. 1 ...	2 15 6-	3 5 6
Bars, Welsh, f.o.b. Wales	5 15 0-	6 0 0
,, ,, in London.	6 5 0-	6 7 6
,, Stafford., ,, .	7 15 0-	8 15 0
,, in Tyne or Tees ...	6 2 6-	6 5 0
,, Swedish, London ..	10 0 0-	10 10 0
Rails, Welsh, at works..	5 0 0-	5 5 0
Railway chairs	— —	—
,, spikes	— —	—
Sheets, Staff., in London	9 0 0-	9 5 0
Plates, ship , in London	7 10 0-	—
Hoops, Staff.	7 15 0-	8 15 0
Nail rods, Staff. in Lon.	7 10 0-	7 15 0
STEEL.		
English, spring	14 0 0-23	0 0
,, cast	25 0 0-45	0 0
Swedish, keg	16 0 0-	—
,, fag. ham.	17 10 0-	—
LEAD.		
English, pig, common	21 0 0-21	5 0
,, ,, L.B. nom.	21 5 0-21	7 6
,, ,, W.B.	21 15 0-	—
,, sheet and bar..	22 0 0-	—
,, pipe	22 0 0-	—
,, red	22 10 0-	—
,, white	27 0 0-28	0 0
,, patent shot ...	24 10 0-	—
Spanish.....	20 12 6	20 15 0
QUICKSILVER.		
Flasks of 75 lbs., ware.	7 5 0-	—
SPELTER.		
Silesian or Rhenish ..	20 5 0-	20 10 0
English, Swansea	22 10 0-	—
Sheet zinc	24 5 0-	26 0 0

TIN.	£ s. d.	£ s. d.
English, ingot, f.o.b ..	73 10 0	74 0 0
,, bars ,, ...	73 10 0-	75 0 0
,, refined.....	76 0 0-	77 0 0
Australian	68 5 0-	68 10 0
Banca	71 0 0-	71 10 0
Straits	68 15 0-	69 0 0
COPPER,		
Tough cake and ingot.	76 0 0-	—
Best selected	77 0 0-	77 10 0
Sheets and sheathing .	80 10 0-	81 0 0
Flat Bottoms	84 0 0-	85 0 0
Wallaroo	75 10 0-	76 0 0
Burra, or P.C.C.	74 0 0-	74 10 0
Other brands	72 10 0-	73 0 0
Chili bars, g.o.b	68 5 0-	69 0 0
PHOSPHOR BRONZE.		
Bearing metal	£112	0 0
Other alloys	£120 0 0-	140 0 0
BRASS,		
Wire	8½d.-	9½d.
Tubes.....	10½	— —
Sheets	9	— —
Yel. met. sheath. & sheets.	7	— 7¾
Nails composition.....	8¼	— 9¾

TIN-PLATES.*	per box.	
Charcoal, 1st quality ...	1 2 6-	1 3 6
,, 2nd quality ...	1 1 0-	1 1 6
Coke, 1st quality	0 19 6-	—
,, 2nd quality	0 18 0-	—
Black .....per ton	16 0 0-	16 10 0
Canada, Staff. or Gla., at Liverpool	12 0 0-	13 0 0
Black Taggers, 450 of 14 × 10	30 0 0-	—

* At the works, 1s. to 1s. 6d. per box less for ordinary; 10s. per ton less for Canada; IX 6s. per box more than IC quoted above, and add 6s. for each X. Terne-plates 2s. per box below tin-plates of similar brands.

REMARKS.—At last the declaration of war has been made, and the progress of events in Eastern Europe will now be watched with even a greater amount of interest and anxiety than before. Woeful, indeed, as such an announcement sounds, yet, strange, to say, it seems to have afforded some kind of relief from the protracted discussions that were uselessly carried on in diplomatic circles, and which only tended to intensify the excitement till it became almost insupportable. The effect produced upon commercial affairs has been most disastrous and distressing, not only causing a very considerable contraction of trade, but great depreciation in prices, and our markets have in consequence fallen into a most deplorable and unsatisfactory condition, the result of which it is utterly impossible to foresee; and considering that we are only at the beginning of trouble, the extent of the evil is beyond all human calculation. Were the nature of the relief of a desirable and beneficial character there might be something better to hope for; but bad as the state of trade has been under the expectation of war, it is not improbable that it may be worse during its continuance, and we fear there will be little or no recovery until the peace of Europe is again restored. One advantage, however, has attended the various stages leading up to the war, and that is, due warning has been given of its approach, and the fall in quotations has been comparatively gradual, and a sudden collapse avoided.

If any have not taken proper precautions it is their own fault, and they must suffer for their neglect; and no commiseration will be shown for their losses, as no excuse would be pardonable for getting involved in difficulties after so many repeated warnings on different occasions. There has been ample time for every man to make his position safe, and we hope that all have succeeded in doing so.

The government of the market ought to be left for a time with those only who are capable of bearing with great and sudden fluctuations. The general feeling, fortunately, at the moment is against operating, and there is not much fear that any will hastily enter into imprudent contracts, and it is absolutely necessary to be very particular and careful about the wording of contracts. All points of an ambiguous meaning should be evaded, and the time of deliveries fixed, which sellers should keep well within; in fact, there should be no loophole by which either buyer or seller can escape. Credits should be reduced, and it would be better that all transactions should be limited to cash payment. No business that is in the least risky should be undertaken without ample security and good balances, and reserves should be well kept up, for the best way to avoid losses and difficulties will be to have everything under control; and if merchants will adopt this course for awhile they will be relieved from great anxiety, and the steadiness of our markets will be greatly preserved. No impulsive action should be allowed to sway the judgment, but calmness and quietude should form the chief characteristic features. One and all should help in endeavouring to contribute to bring our markets into a sound and healthy condition, and this can only be effected by avoiding speculation. Prices will suffer less if they are simply regulated by the increase or decrease of demand for *bona fide* consumption. A time of war is a period of adversity and trouble, and who but a foolhardy adventurer would dare to risk his substance for what at the best could only prove a trifling gain.

COPPER.—A further fall has taken place in the prices of both English and foreign, and the market still remains in a very unsettled state. The quantities arriving are as much in excess of present requirement, and holders are already so heavily weighted, that nothing but a further reduction in value will afford material relief to the market. There is no doubt that this metal has been pent up too long, and it would be much better to let it out and get it distributed, so that dealers generally may take more interest in it. Several times has it been tried by holders of Chili bars to control the market, but they have invariably failed in accomplishing their object, and they are less likely to succeed now than at any other time, for the age of monopolies has gone, never to be recalled, and anyone acting upon an obsolete principle like that will be sure to pay dearly for his experience. An uneasy feeling naturally is created when stocks are large, and held closely by just a few hands—the whole trade is set against them, for they are the obstructors of business, and neither do any good for themselves or allow others to benefit by the supplies—and there will be no confidence in the stability of the market while large quantities continue to be heaped up, for everyone knows that, after all, it is a mere question of time as to when it will be realised. There is very little doing in English, and smelters are much in want of orders, and sales of Australian could only be made by sellers submitting to reduced rates. In Chili a few realisations have taken place at a decline, but more business might have been done if holders had shown a greater disposition to meet the altered state of affairs, and what they are waiting for it is difficult to understand, as prices, taken in combination with the excessive stocks, the dull state of trade, and the perilous times ahead, present no prospect of improvement.

The mail leaving Bombay on the 31st ult. states copper and yellow metal are firm. The mail from New York on the 14th inst. reports manufactured to be quiet but steady, and for ingots there were more enquiry, and prices were hardening: 250,000 lbs. to 300,000 lbs. of Lake had been sold, at 19¾ c. to 19⅞ c., closing 19⅛ c., but by the subsequent mail on the 14th inst. the price had not advanced, for it was then quoted at 19⅝ c. to 19¾ c. It was stated, however, that there was a moderate demand for ingots, and that the stock was steadily diminishing, and no further supplies expected for about another month. The sales of Chili in our market on on Monday last consisted of 200 tons, g.o.b.'s spot and for arrival, at 69*l.* 5*s.* Quotations for Australian remaining at 78*l.* 10*s.* for Wallaroo, and 75*l.* 10*s.* for Burra. On Tuesday Chilli bars were unaltered, but Wallaroo was quoted 76*l.* to 76*l.* 10*s.*, but on Wednesday not more than 76*l.*, and Burra was reduced to 75*l.*, 75*l.* 10*s.*; Chili also declined to 69*l.* On Thursday the market was again easier, and 100 tons of Chili were reported at 68*l.* 10*s.*; Wallaroo, 75*l.* 10*s.*; and Burra, 75*l.* To-day the market has been again in a very doubtful state, and sales could only be made at lower prices. There has been 50 tons of Chili bars sold at 68*l.* net, but buyers are not inclined to give more than 68*l.*, usual terms, at which a little more might have been sold had not sellers put their price to 68*l.* 5*s.* The market closes with a decidedly downward tendency, and unless something unforeseen occurs lower rates will prevail during the ensuing week.

IRON.—There is no change to mention in quotations, and the market assumes the same appearance as for some time past. Orders for all kinds are very scarce, and buyers cannot be induced to buy at trifling concessions, as the bottom of the market does not yet appear to have been reached. The accounts from the various iron districts are discouraging, and, with little exception, they all express a most melancholy state of things in regard to the present and immediate future. From Sheffield the advices are very gloomy, and the condition of trade is said to be no better, but is daily becoming worse. The rail department is the only branch which shows any activity; but, speaking of general prospects, the future is referred to as being as gloomy as ever, and no promise of reviving trade. Failures are hinted at, and even a crisis not improbable, if the present state of things lasts much longer. From Leeds the same dulness prevails as noticed in previous reports, and no signs of improvement. At Rotherham it is stated that the depression seems to be extending to branches other than those which have hitherto been so seriously affected, and there is a large proportion of machinery and plant lying idle and unproductive. South Durham is pretty fairly off for orders for pig iron, but in other respects, taken altogether, it is asserted that there can be nothing at all hopeful predicted. In Lincolnshire the state of the iron trade still keeps very bad; and in Manchester consumers complain of a still greater scarcity of work and short time in general.

From Barrow-in-Furness there is not much change to report, the tone of the market being again quiet; business, however, continues very limited—the producing plant of the district being employed only two thirds. By the mail leaving New York, April 11, Scotch pig business was limited to small jobbing purchases, at unchanged prices; and the American pig market was dull and drooping, with nominal sales at low prices. The Glasgow market for Scotch pigs, on the whole, has been fairly supported. The shipments from January to April 21 amounted to—

1877	1876	1875	1874	1873
118,341	121,518	160,813	134,477	198,166 tons

and the weekly SHIPMENTS.

Week ending April 21, 1877 ..... Tons	10,020
Week ending April 22, 1876	9,490
Increase	530
Total decrease for 1877	3,261
Imports of Middlesborough pig-iron into Grangemouth :—	
Week ending April 21, 1877 ..... Tons	5,020
Week ending April 22, 1876	4,965
Increase	55
Total increase for 1877	16,232

The price of mixed numbers to day has advanced to 55s.

LEAD.—The tendency of this market has been in the direction of high prices, caused, no doubt, by the anticipated demand for warlike purposes.

SPELTER.—At the public sale 115 tons of zinc was sold on Thursday at 24*l.* 5*s.*, being the same as last sale's price. In hard Spelter there is not so much enquiry, and sellers have reduced their prices. Silesian is still quoted at 20*l.* 5*s.* to 20*l.* 10*s.*

QUICKSILVER.—The price is unchanged, and Spanish is still quoted 7*l.* 5*s.* In America (New York) the price is quoted nominal.

STEEL.—The state of our market is unaltered, and prices are quoted much about the same as before.

TIN-PLATES.—Makers have given way in their prices both in coke and charcoal; the former have been sold at 17*s.* 6*d.* per box in London and 17*s.* in Liverpool, and the latter at 21*s.* 6*d.* for best quality. The reduced prices do not appear as yet to have had much influence upon buyers, for orders are limited in number and small in quanty.

TIN.—Again, throughout the week the wide difference of 30*s.* per ton has occurred in the quotation for English tin, and this unusual occurrence being repeated, clearly indicates that there must evidently be some reason for it, and, as many will, no doubt, think it mysterious and unaccountable, considering the unanimity which has always been exhibited by the English smelters, it seems necessary that some explanation should be offered upon the matter. Of course the realisation of a second hand parcel, or an exceptional transaction of any other kind, would not be considered of that importance requiring any special reference; but the question in the present instance has been naturally deliberated upon by the representatives of the English smelters, and acknowledged by them to be right, and further confirmed by the high authority of the committee, and duly inserted in the Official List. The quotation then being established and confirmed in the most approved manner, places its correction beyond disputation, and therefore must be so understood by the whole trade, but that which will possibly interest buyers most is to know the reason why some smelters firmly adhere to 74*l.*, when others accept 72*l.* 10*s.* Now, there has never been much question about the quality of English tin, and, therefore, it does not wholly arise in consequence of the preference of one brand over another, although there may be something in that, especially since Australian is said to be run into fresh markets and sold as English, but it is not altogether on that account that the difference arises, but more from a slight misunderstanding over the allotted proportion of ores purchased by the several smelters at the current ticketing. Straits sold at 68*l.* 15*s.* to 69*l.*; Australian, 68*l.* 5*s* to 70*s.*

THE IRON TRADE—(Griffiths's Weekly Report).—Friday Evening: Business was done in warrants this morning on the Glasgow Exchange from 54*s.* 9*d.* to 55*s.* The market closes this afternoon with buyers 54*s.* 10*d.*, an advance on the week of 7*d.* per ton. We quote makers' No. 1 iron, Gartsherrie, 63*s.* 6*d.*; Coltness (nominally) 67*s.* 6*d.*; Calder, 63*s.* 6*d.*; Langloan, 63*s.* 6*d.*; Summerlee, 60*s.*; Monkland, 56*s.* f.o.b. Glasgow; Glengarnock, 64*s.* 6*d.*; Eglington, 57*s.* 6*d.* f.o.b. Androssan; Shotts, 62*s.* f.o.b. Leith; Kenniel, 57*s* f.o.b. Bo'ness. The Russian declaration of war with Turkey has caused a slight shock to the iron trade, for although it it does not so immediately affect the iron trade of this country, it brings the whole trading community into serious reflection; the ironmasters and merchants being intent upon calculating the consequences to their own particular interests which the war will involve. These considerations have brought about a momentary pause in current operations, which will continue until merchants can with greater certainty gauge the future effects of the war.

Fighting in the Black Sea and on the Danube cannot interfere with any of our iron trade except with the Russians. The Russians have the great bulk of the iron bought from this country delivered at Baltic ports. Very little, indeed, goes to the heart of the Russian Empire, *viâ* the Black Sea Odessa, and Seba-topol. It may, therefore, be taken for granted that the war will interfere very little indeed with our Russian trade, and will in no way affect our trade with Turkey. The Mediterranean will be free from any Russian squadon, and the Dardanelles being in possession of Turkey, our trade with the latter country will be free and uninterrupted. For the present the war will be confined to the countries in the vicinity of the above districts, and, therefore, to all intents and purposes trade will not be interrupted. The question is universally asked "What will the effect of the war be upon the iron trade?" This question presents difficulty in its answer; however, we may say that that the war will not make the trade worse; on the contrary, if the war has any effect at all, we believe it will be to improve the trade. Russia will require iron and materials of war, and must have it. Turkey is in precisely the same position, and must have its wants supplied, and if the demand for specialties from both these powers increases the iron trade will be improved in this country in a proportionate ratio.

The Glasgow and Middlesborough Exchanges are already reading future prospects from this stand-point, and both markets are firmer. The business done on our market this week is very moderate; indeed, very few new contracts have been given out. Probably in the course of another week merchants will be enabled to see further into the future, and place their indents accordingly. There is no change whatever in the price of iron. Best Yorkshire and Staffordshire are most in demand, and nail rods and galvanising sheet iron claim the greatest attention of buyers. Scotch pigs are about 6*d.* per ton dearer than they were this time last week. Hematites are very firm. General metals, including copper and tin, are inherently weak, although by dint of great exertions current quotations are maintained.

Messrs. FRY, JAMES, and CO.—COPPER.—The Australian descriptions sold by auction on the 17th instant realised an average of 76*l.* 3*s.* 6*d.* for Wallaroo, and 75*l.* 3*s.* 6*d.* for Burra, since which time our market has been quiet, and prices of all descriptions have slightly receded, and the amount of business transacted has been but small. The copper ores sold at Swansea on the 24th instant realised about 3*d.* per unit less than the previous sale.——TIN has continued to droop, and prices have fallen about 20*s.* per ton all round, the present low range of prices not having been reached since 1850.——LEAD has been rather lower since our last issue, but is now steady at quotations.——TIN-PLATES continue extremely difficult of sale, notwithstanding the extremely low quotations.

War has been declared, and the public, rushing into the markets to sell stocks at any sacrifice, have fallen into the "panic prices" prepared for them by the "bears." In the general depression the MINING SHARE MARKET has has not altogether escaped, and quotations for some mines are much lower. How long it may be before the reaction in the general markets sets in it is impossible to say; but, as we have before remarked, home mines have invariably improved during war, and we see no reason to doubt that on this occasion history will again repeat itself.

The Tin Mines of Cornwall have been ruined by the importations of Australian tin; and, as it is notorious that much of this has of late been sent here at a loss, war risks and war freights may have a tendency to lessen the supply. The same may be said of copper, and with an increased demand for metals, and a decreased supply, we hope we are not too sanguine if we expect a considerable advance in prices, with which the share market will sympathise, and make sound mining undertakings the best means of investment we have.

TIN MINES remain flat and quite neglected. Carn Brea are quoted 33 to 35; Cook's Kitchen, 2 to 2½; Dolcoath, 32 to 34; East Pool, 9¼ to 10½; South Condurrow, 6¾ to 7¼; Tincroft, 16 to 17; Wheal Agar, 3 to 3½; Wheal Grenville, 20*s.* to 25*s.*; Wheal Kitty, St. Agnes, 2 to 2½; Wheal Peevor, 1½ to 2; Wheal Uny, 1½ to 1¾; Relistian Consols, ½ to ⅝; New Cook's Kitchen, 2¼ to 2¾; South Frances, 15*s.* to 17*s.* 6*d.*; West Basset, 3¼ to 3¾. West Frances, 3½ to 4; a call is expected at the meeting.

In COPPER MINES shares West Tolgus are quoted 60 to 62; at the meeting, on Wednesday, the accounts showed a profit on the two months' working of 231*l.*, and a balance in hand of 812*l.*, out of which a dividend of 512*l.* (1*l.* per share) was declared, leaving 300*l.* to be carried forward. The copper ores sold in January and February realised 3049*l.*; cost for February and March, 2818*l.* The copper ores sold in March and April, and to be credited at the next meeting, realised 3341*l.*, and another sale is estimated this month at 15,000*l.*, which will make the credits, with the balance in hand, 5200*l.* The engine-shaft is down within 2½ fathoms of the 145. The lode in the 135 east is worth 1½ ton of copper ore per fathom; west, 6 tons. Altogether the mine is looking well. Devon Great Consols, 4 to 4¼; the new shaft on the new south lode is being continued below the 175, and the north part of the lode is worth 4 tons of copper ore per fathom. The 175 east, on the south part of the lode, is worth 2 tons. Hingston Down, ½ to ¾; Marke Valley, 15*s.* to 20*s.*; Parys Mountain, 5*s.* to 7*s.* 6*d.*; Penstruthal, 9*s.* to 11*s.*; Cathedral, 1 to 1¼; West Seton, 30 to 32½; Wheal Crebor, 2 to 2¼.

Among LEAD MINES, Vans are 31 to 33. East Van, 5 to 5¼, driving east at the 25 towards Van will be commenced next week. Roman Gravels, 12 to 12½; the 106 south is worth 1 ton of lead ore per fathom; winze below the 95, 3 tons per fathom. Tankerville, 8 to 8½; Watson's engine-shaft is down 9 fms. 5 ft. below the 180. The 180 west, now 16 fms. from the shaft, is a strong masterly lode, worth 3 tons per fathom; the 180 east is worth 4 tons. The ore ground, the agent states, is now double the length it was in any of the upper levels, which is very important. Rookhope, 17*s.* 6*d.* to 20*s.*; this mine is looking well, and the sampling for the month is 30 tons of lead ore; next month it will be larger. Derwent, 3 to 3¼; the Sun vein, just discovered at the 70, is worth as far as seen 1 ton of lead ore per fathom; and this lode, we are informed, will soon add considerably to the already increasing returns. There are 15 points in operation, worth, in the aggregate, 15 tons per fathom. Aberdaunant, 12*s.* to 15*s.*; Assheton, 1½ to 2; Great Laxey, 20 to 21; North Laxey, 12*s.* 6*d.* to 15*s.*; Glenroy, 20*s.* to 25*s.*; Glyn, 1½ to 1¾; Van Consols, 1¾ to 2.

West Tankerville, 1⅛ to 1¾. Pennerley, 9*s.* to 11*s.*; a special meeting has been called for May 2 for the purpose of increasing the capital of the company by the issue of 6000 preference shares of 2*l.* each; but the shares are to be treated as fully paid-up, with 1*l.* only paid, and entitled to a preferential dividend of 15 per cent. per annum on the full nominal amount, in priority to any dividends on the ordinary shares. Llanrwst, 2¼ to 2½; Gorsedd, 4¾ to 5¼; Treweek Consols, 9*s.* to 11*s.*; West Chiverton, 16 to 17; West Craven Moor, 12 to 13. Clementina, 40 to 50; the lode in the shaft has improved to 2 tons per fathom in the south end, and 1 ton in the north end; the 25 end south 1 ton, and the rise towards the winze from the 15 is also worth 1 ton per fathom. D'Eresby Mountain, 20 to 25; the lode in the deep adit has improved. South Roman Gravels, 10*s.* to 15*s.*; the lode has been cut into 5 ft. at the 45. The agent thinks it a very large lode, and no signs at present of any footwall. Combmartin, 12*s.* 6*d.* to 15*s.*; at the meeting a call of 1*s.* per share (300*l.*) was made. The accounts showed a balance of liabilities over assets of 99*l.* 4*s.* 4*d.*, and the report was of a very encouraging character. The mine is worked at very little cost, and before the next three-monthly meeting the agent hopes to sell 10 tons of rich silver-lead. Leadhills, 6 to 6¼. Monydd Gorddu, 5 to 5¼; the lode in the 24 end is worth 60*l.* per fathom for lead, and in a few days 9 tons of lead will be sampled. Grogwinion, 3 to 4; Red Rock, 2 to 2½; South Cwmystwith, 2 to 3; St. Harmon, 3 to 2½; Wye Valley, 3 to 4; West Wye Valley, 2 to 3; West Gogiman, ½ to 1.

In FOREIGN MINES Argentine is quoted at 4 to 4¼. Almada and Tirito, ¼ to ⅜. Cedar Creek, ½ to ¾. Chontales, ½ to ⅝. Santa Barbara, 2 to 2¼; the directors' report and statement of accounts for the year ending December 30, 1876, shows a profit of 5801*l.* 4*s.* An interim dividend of 1*s.* 3*l.* per share has been paid, and the directors after adding 500*l.* to the reserve fund recommend another dividend of like amount, payable on the 20th of May, which will make 25 per cent. for the year 1876. The gold returned in the year realised 19,319*l.* 18*s.* 4*d.* The resident agent's report is very hopeful for the future. He says:—"The present position of the mine is favourable and highly promising. One great incubus during 1876 has been want of force, which drawback I am of good hopes to overcome in 1877." Don Pedro, ⅜ to ½; Eberhardt and Aurora, ⅞ to 8½; Exchequer, 1⅜ to 1⅝; Flagstaff, 2¼ to 2⅜; Frontino and Bolivia, 1⅜ to 2; I.X.L., ¾ to 1; Javali, ⅜ to ½; New Zealand Kapunga, 2 to 2¼; New Quebrada, 3½ to 4; Port Phillip, 9*s.* to 11*s.*; Richmond, 6 to 6¼; South Aurora, 3 16ths to 5-16ths.

The MARKET FOR MINE SHARES on the Stock Exchange has continued greatly depressed, the small variation in quotations being attributable rather to the almost absolute absence of business than to an indisposition on the part of holders to accept lower prices. Many consider that the lower prices now ruling are more the result of speculative selling upon an already weakened market than realisations by holders, and suggest that those act most wisely who are not induced to sacrifice their stock at prices brought about by "bears" taking advantage of exceptional circumstances.

A proposition is made in another column that the Burry Port Company's creditors should take over the property for the amount due to them, releasing the debtors and supplying 35000*l.* working capital. By this arrangement each creditor would have to contribute 1*l.* working capital for every 5*l.* now due to him. The smelting works would then be carried on as a mutual concern, so that each set of mine shareholders would practically become their own smelters, but with the important difference that there would be but one set of management charges for the whole of those smelting there. As the assets only represent a prospective dividend of from 1*s.* to 2*s.* in 1*l.*, the purchase money would be virtually less than the 18,000*l.* assets, and the present Burry Port creditors would ultimately get 20*s.* instead of 2*s.* in 1*l.*, and secure a permanent property, as well as facilities for smelting their ores at a reduced rate. Mr. Peter Watson having had some experience of smelting, and having also such influence with lead mining companies as would enable him to procure outside smelting business for the concern, has, it is understood, been mentioned as a desirable chairman, whilst care would be taken to have the creditor companies well represented at the board. The enterprise is one which miners have long regarded as calculated to promote their interest, and can now be launched on such favourable terms that its success is considered to be beyond question.

New Zealand Kapanga, 1¾ to 2; the report of the manager to March 10 states that the lode continues 18 to 24 in. wide, occasionally yielding rich gold quartz, similar to specimens sent home a few months since. He sent by mail a 10-oz. specimen, estimated to contain 2 ozs. of gold, broken from the winze the same day. He states that the whole lode is good crushing stuff that will yield with the specimens 1 oz. per ton, and the out-turn is from 3 to 4 tons per fathom. He has obtained goldstone from every foot they have sunk in new ground. The total quantity of stuff accumulated at the stamps for crushing is about 45 tons, and he has 7 lbs. of specimens in the safe estimated to yield 2 oz. of gold to 1 lb. of stone. He hopes to be able to put on a few hands to commence stoping next month (it is regrettable that the total number of hands employed in and about the mine and what they are doing is not published with each report), when the yield of specimens and crushing stuff will be increased according to the number of hands that can be employed. The surface and underground water-wheel machinery continue to work without interruption. The latest telegram announced that the winze had been sunk far enough to allow of the No. 6 level being commenced. Everything was going on satisfactorily.

Rio Tinto, 5 per cent. Spanish coupon bonds, 56 to 58; 7 per cent. mortgage bonds, 14 to 14½; shares, 3¾ to 4¼; the general meeting is called for Thursday, and the balance-sheet to end December shows that 157,539*l.* has been earned as profits from 1873 to 1876, including a few small items for rents in Spain, &c. There is a cash balance of 115,403*l.* The lode has been laid bare for 830 ft. in length by 120 ft. deep, and 250 ft. wide, and is now being worked in the open from three terraces, about 2500 tons of mineral being daily extracted. Tanks have been added of the capacity of 450,000 tons of raw ore, and corresponding precipitating tanks also added. The railway and pier both work well, labour continues abundant, and the workpeople are industrious and peaceful. The mines employ 4500 hands, besides 600 or 700 beasts, and seven locomotives. Mr. John Arthur Phillips has been appointed consulting mining engineer, in the place of the late Mr. David Forbes, F.R.S., and has just gone out on his third visit to the mines. The exertions of Mr. Mark W. Carr, C.E., and of his staff at the mines in developing the company's property are recognised in the report. During the current year 260,000 tons of mineral (more than the fourth) was delivered in the first 13 weeks, and the calcination will be raised to 400,000 tons. It is considered that the company have now surmounted the greatest difficulties which they had to encounter.

St. John del Rey, 270 to 300; the last telegram received, dated Morro Velho, April 16, states the profit for March at 5100*l.* All is going on well. Don Pedro, ½ to ⅝; the agent reports No. 8 shoot to be disordered by a fissure in the lode, which had not, however, he thought, been heaved by it, though this cannot be entirely proved

til they get to the east of the fissure. The telegram, dated Rio, pril 23, gives the produce cleaned up for the first division of April 1450 oits. Santa Barbara, 1⅞ to 2¼; the operations at the mine e reported to be going on much as usual, with no important change the lode.

Argentine, 4¼ to 4⅞; satisfactory advices have been received from r. Oxland and from the manager. The Oxland calciner, it is ex- cted, will be at work in about three weeks from the present time. e mines generally are described as looking as well as at any rmer period. Condes, 4¼ to 4⅜; the last report is considered to the most satisfactory ever received from the mines, which are timated to be capable of yielding 500 tons per month, but it is id that advantage has not been taken of the actual discoveries ow the imperfect organisation of transport from the mine, the fficulties of which are being rapidly overcome.

Richmond, 5⅜ to 6¼; the usual weekly telegram gives the week's un at $30,000. The refinery has this week produced doré bars to e value of $11,000. It appears that only one apparatus is at ork. The usual comments on the manager's report (published in nother column) has not been forwarded to us by the secretary, ho states also that last week there was nothing of importance to ommunicate. It will be remembered that the trial of the Eureka ompany's injunction suit against the Richmond Company has been moved from Carson to San Francisco, and the hearing fixed for ay 7. It may, of course, be good policy of the executive not to fer for the moment to the pending suit, but the shareholders n - turally desire to know that the mine operations are progressing favourably, especially in the undisputed ground.

Eberhardt and Aurora, 7¾ to 8¼; the meeting will be held on May 17, and in anticipation thereof the accounts to Dec. 31 have been issued. The directors congratulate the shareholders on the satisfactory result of the past year's working, and make the curi- ous observation that but for the great depreciation in the price of silver the profit thereon shown would have been 39,184l. 10s. 3d. What would the Royal Mint authorities think if a magistrate dis- charged an utterer of counterfeit coin because he pleaded that but for the large admixture of base metal therein it would have been equal to standard? Had it not been necessary to call a meeting now to pass the accounts the directors would have preferred to call it later in the year, as Capt. Drake's report, recently forwarded, leaves nothing to communicate. As it is the meeting will be simply formal for passing the accounts, and transacting the ordinary busi- ness of the company.

Exchequer, 1¼ to 1⅜; the secretary has forwarded particulars of an assay made by Messrs. Johnson, Mathey, and Co. of a specimen of mineral found in the stope in the 140 ft. level of this mine. They report produce of gold 5·70 (say, 5¾) oz., and produce of silver 660 oz. per ton of 20 cwts. A few such specimens as this would soon produce an effect upon the general body of mineral. It is said that the O'Hara furnace has given satisfaction under Mr. O'Hara's management, as the manager describes everything working admir- ably. The period allotted for the experimental tests had elapsed, and it is now expected a series of amalgamating trials will be en- tered upon, so that no definite result can be looked for until June. The developements at the mine continue satisfactory, and 20 to 25 tons of paying ore were being daily hauled to surface. I.X.L., ½ to ¾; it is expected that Mr. Arnott is completing the brickwork at the mill, and that Mr. O'Hara is about to commence the erection of his furnace for this company. The manager writes he is in a position to supply the mill when complete with 25 tons of ore daily, leaving a not inconsiderable profit. The manager has advertised for team- sters to haul this from the mine to the mill, so that everything may be in a position to make returns before July. The face of the 200 ft. level showed 4 ft. of solid quartz, apparently medium ore, that qua- lity (according to Capt. Nettle) representing a value of $50 to $80 per ton, which will leave a considerable profit, the cost of mining, hauling, milling, &c., amounting to about $15 per ton. The ledge is stated to be well defined, and these 4 ft. of solid quartz, apparently medium ore, are thought to be merely the fringe of the bonanza, which lies further north. The Ophir lode is also looking well. The O. K. shaft has been unwatered so as to connect the rise with the 200. The great facilities for speedily opening out the property, and the important points that will soon be reached in confirmation of the manager's original report are said to be scarcely yet appre- ciated by the shareholders.

Flagstaff, 2½ to 2¾; the discoveries of ore announced last week have been confirmed by later advices, which mention that 75 tons per day have been realised since April 20. It is stated that the ave- rage return of 70 tons per day from April 1 to 18 was realised from points wholly independent of the discoveries in extended explora- tions on other levels made at the latter date, and that it is antici- pated that for May an average output of 85 tons per day will be realised. The most adverse season of the year is now practically passed, and advices state that snow in the canyon has broken up; the roads are now passable and improving, and Mr. Hunter is at present able for the first time since he gained possession of the pro- perty to send the full output of ore to market the same day on which it is mined. Hence the recent discoveries occurring at the advent of the return of the favourable seasons are considered to be- speak a distinct and solid improvement in the general conditions and promise of the enterprise. It is rumoured that the half-yearly meeting on Monday, is likely to be of a favourable character.

The shares in Hydraulic Mines present no feature of interest. Blue Tent is quoted 3 to 3½; washing is progressing regularly, and water is plentiful, late rains will, it is expected, considerably pro- long the water season. Birdseye Creek, ¾ to ⅞; there is no news of importance from this property, but the superintendent's letter de- tails the progress made.

The shares in Lead Mines are without any special change. Van, 32 to 34; the various parts of the mine are looking much as usual, and at surface everything is working most satisfactorily. The new 70-in. engine was started on Thursday. Van Consols, 1⅞ to 2; the new shaft is down 8 fms. under the 40, about 90 fms. from surface; it is believed that within a month the Van lode will be reached and cross-cut through at this point. A depth is now reached at which it is fully expected lasting deposits of lead will be met with. Great West Van (preference) shares 40s. to 42s. 6d.; a well known authority writes:—"I fully expect you will any day have a great discovery here. What more can be expected from the fine indications the pre- sent explorations are daily developing?"

Glyn, 1⅞ to 1½; the manager continues to express the utmost con- fidence that a fine lode of lead will be met. Pennerley, ½ to ⅝: the cross-cut at the 120, towards Warm Water lode, is presenting a very favourable appearance, an important change has taken place in the end. The agent expects to intersect the lode next week. No change elsewhere. Pateley Bridge, 2½ to 3; the report indicates that seve- ral further improvements have taken place; the special report of Capt. Williams (manager of Van) is awaited with interest. Cathe- dral, 20s. to 30s.; the mine is improving rapidly; the opening up of the bottom levels, some 70 fms. from surface, indicates close prox- imity of large bodies of copper such as this district has been famous for. Penstruthal, 10s. to 12s. 6d.; the development of the High- burrow lode gives indications of large masses of copper ore under- neath and beyond the present workings. Rocks of grey copper ore yielding 50 per cent. of pure copper have been met. It is said that all who have visited the mine are only surprised that a rich course of copper has not been reached ere this. This appears certain, how- ever, to follow further explorations, and which are being carried out with the utmost vigour.

Subjoined are the closing quotations:—

Assheton, 1½ to 2; Carn Brea, 34 to 36; Devon Great Consols, 3½ to 4; Dolcoath, 32 to 34; East Caradon, ⅝ to ⅞; East Van, 5 to 5¼; Glyn, 1⅞ to 1⅝; Great Laxey, 20 to 21; Great West Van, ¼ to ½; Hingston Down Consols, ½ to ¾; Leadhills, 6 to 6½; Marke Valley, ¾ to 1; Pateley Bridge, 2½ to 3; Parys Mountain, ¼ to ⅜; Pennerley, ¼ to ½; Penstruthal, ⅜ to ⅝; Roman Gravels, 12 to 12½; Tankerville, 8 to 8⅛; Tincroft, 15 to 17; Van, 32 to 34; Van Consols, 1¾ to 2; West Assheton, ⅞ to 1⅛; West Basset, 3½ to 4⅛; West Chiverton, 15½ to 16½; West Pateley Bridge, 1 to 1¼; West Tankerville, 1⅝ to 1⅞; Wheal Crebor, 2⅛ to 2¼; Wheal Grenville, 1 to 1¼; Almada and Tirito, ⅛ to ⅜; Argentine, 4¼ to 4¾; Birdseye Creek, ⅝ to ⅞; Blue Tent, 3 to 3½; Cape Copper, 40 to 41; Cedar Creek, ½ to ¾; Chontales, 3-16 to 5-16; Colorado Terrible, 1½ to 2; Condes of Chili, 4¼ to 4½; Don Pedro, ⅜ to ½; Eberhardt and Aurora, 7⅞ to 8⅛; Emma, ⅜ to ½; Exchequer, 1¼ to 1½; I.X.L., ⅝ to ⅞; Flagstaff, 2¼ to 2⅜; Frontino and Bolivia, 1⅝ to 1⅞; Javali, 5 16ths to 7-16ths; Kapanga, 1¼ to 2; Last Chance, ¼ to ½; Malpaso, ⅜ to ⅝; Malabar, ⅛ to ¼; New Pacific, ⅛ to ¼; New Quebrada, 3¾ to 4¼; Pestarena, ⅛ to ¼; Rica, ⅛ to ⅜; Richmond Consolidated, 6 to 6¼; St. John del Rey, 270 to 290; San Pedro, ½ to ¾; Sierra Buttes, 1¼ to 1¾; South Aurora, ¼ to ¾; Tecoma, ¼ to ½; United Mexican, 2 to 2½.

COLLIERIES.—The past week, like the preceding one, has been almost void of transactions in this class of shares, the breaking out of the Russo-Turkish war having apparently put out of the mind of the investing public almost everything but calculations as to the effect it may have upon the larger priced stocks. As regards the coal trade, however, there can be little doubt that an improvement is on the eve of taking place, and a rise in the price of South Wales steam coal to the extent of 2s. per ton is spoken of as a certainty. The exports last week were about 40,000 tons above the average, and though there can be no doubt that this is to some extent due to a desire on the part of colliery proprietors to be ready for an augmented demand from the East, it is evident that a great increase in the trade is to be expected. The price of coal is everywhere somewhat firmer, and in some districts there is, as also in the iron trade, a distinct improvement. Should this be maintained colliery shares will again be regarded as a good investment, and as values may be said to have reached a minimum increased prices may be looked for. Chapel House shares close at 2¾ to 3¼; the 15-ft. pit is down 189½ yards, 16 yards having been sunk during the past fortnight. Drawing from the celebrated Park Mine seam for the coal, for which there is an unlimited demand, commences to- day. Thorp's Gawber shares close at 1¾ to 2¼, and New Sharlstons at 3½ to 4. Alltami shares have been enquired for at 5 to 5¼; the first seam is now in work- ing order, and the new portion of the property is proving well. Rapid progress is being made to the main coal, which it is probable will be found 12 ft. thick. Llay Hall, 9½ to 10; the main seam looks very satisfactory, and a great quantity of coal is being rapidly opened out. Bilson and Crump Meadow and Newport Aber- carn show no change, and close as last week, at 4½ to 5¼, and 3 to 4 respectively. Cakemores, 2½ to 3. A few small quantities of Cardiff and Swansea shares have been absorbed by investors. Should coal rise, as is expected in consequence of the Eastern disturbance, the Cardiff and Swansea Company having large connections abroad, would be among the first to feel it.

At Swansea Ticketing, on Tuesday, 2731 tons of copper ore were sold, realising 38,558l. 11s. 0d. The particulars of the sale were—Average standard for 9 per cent. produce, 89l. 0s. 10d.; average pro duce, 20 13-16; average price per ton, 14l. 2s. 4d.; quantity of fine copper, 568 tons 14 cwts. nearly. The following are the particulars of the two last sales:—

Date.	Tons.	Standard.	Produce.	Per ton.	Per unit.	Ore copper.
April 3	1997 ..	£ 92 9 4	... 13 9-16 ...	£ 9 9 1	... 13s.11½d.	... £69 16 0
April 24.....	2731 ...	89 0 10	...20 13 16 ...	14 2 4	... 13 8	... 67 16 0

Compared with the last sale, the decline has been in the standard 3l. 8s. 6d., and in the price per ton of the ore about 14s. 3d. Messrs. Richardson and Co. thus report the produces and prices—Italian: produce, 13 1-16; per unit, 13s. 5¾d. Algerian: produce, 7⅓; per unit, 12s. 8¾d. Rio Tinto precipitate: produce, 72⅝; per unit, 13s. 7½d. Cape: produce, 27½; per unit, 14s. Berehaven: produce, 9¾; per unit, 13s. 7½d. On May 8 there will be offered for sale 1334 tons from New Quebrada, Moonta, Cape, Berehaven, Cronebane, Australia, and elsewhere.

A dividend at the rate of 10 per cent. per annum has been declared by Richards and Co. (Limited) for the half year ending March 31, being the same rate of distribution as for the corresponding period in the preceding year.

ROOKHOPE.—The Gin shaft is completed, and ready for drawing from the 25 fm. level as soon as the signals are fixed. There are only now about 8 fathoms to communicate the rise from the 42 fm. level to the shaft, and the 42 fm. level will then be driven forward to get under the very rich winze below the 25 fm. level; the 42 end is already worth 15 cwts. per fathom. The stope in the back of the 25 fm. level is worth 25 cwts. of lead ore per fathom. The rise in the 15 fm. level on a north branch leaving the main lode is worth 2 tons per fathom. The rise in the back of the 15 fm. level on the side of the level not formerly worked is worth 20 cwts. per fathom. A cross-cut is being driven north in the adit to prove the north branch discovered in the workings below. Next week there will be sampled again 30 tons of ore for the month, and after that the returns will be increased.

DERWENT.—The Sun vein just discovered in the little limestone at the 70, is worth as far as yet seen 1 ton of rich lead ore per fathom. This lode will soon add materially to the already increas- ing returns. The full report from the manager will be found in the usual column, from which it will be seen that there are 15 places at work, worth in the aggregate 15 tons of lead ore per fathom, and, therefore, averaging 1 ton per fathom each.

NORTH LAXEY.—The lode in the shaft is 3 ft. wide, and produces stones of lead. The winze below the 121 is worth 15 cwts. to 1 ton. A new trial stope in the 110 is worth 10 cwts. The stope in the 84 is worth 10 to 15 cwts. The stope in the bottom of the 60 north is worth 15 cwts. to 1 ton. In the back of this level it is worth 1 ton, and in the 40 and 50 levels averages 10 cwts. per fathom.

PLYNLIMMON.—In Jones's winze below the 24 the lode has im- proved to ½ ton of lead ore per fathom, and Herbert's winze below the same level is still worth 1 ton per fathom. The bottom of the 24 for 30 fms. in length averages 2 tons per fathom, which tells well for the 36 fm. levels which will soon be commenced, the shaft being already down to nearly that depth. This mine has yielded about 38,000l. worth of lead ore from only the 24 fm. level upward, and it is, therefore, of considerably more than usual promise. We under- stand, however, that it suffers from want of capital, owing to a large number of the shareholders not taking up the remaining 1000 shares still unissued; and if this is not done quickly it must be a question whether it would not be wise to wind up the present company, and dispose of the mine to those who will find the money to work it properly. If this is done a large number of the present shareholders will be alone to blame.

WHEAL NEWTON—The newly-discovered silver lode was in- spected this week by Capt. Simmons, the agent for the Duchy of Cornwall, who, we are informed, considers it the best he ever saw. A further parcel of the ore has been sold at 67l. 3s. per ton.

WEST SETON.—This mine still continues to look well. The new jigging machines are working satisfactorily, and there are 300 tons of copper ore sampled for the next ticketing, on May 3, which it is believed will realise about 1800l.

CWM DWYFOR.—Active operations are being carried on by the new company which has just taken over this property. The mine is in fork, and it is expected that the sinking of Stewart's shaft will be completed to the 20 next week, when a level will be driven west at that depth to meet the No. 4 lode south.

*** With this week's Journal a SUPPLEMENTAL SHEET is given, which contains—Original Correspondence: Gualitan Gold Mines; Mining in the East—No. XI; Boring by Machinery *v.* Hand Labour (G. W. Denys); Lanzi Mine—The Patent Dry Ore Concentrator; Australian Gold Companies (T. Dicker); the Chontales Mine; Lead Mines Their Own Smelters—the Burry Port Smelting Company; Chapel House Colliery (W. Hopton); Clementina (J. Y. Watson); Water-Wheels; Mining Leases (W. Thomas); Mining in Cornwall—the St. Blazey District (E. Mitchell); Mining in Car- diganshire—Monydd Gorddu (J. Jones); Capt. Tregay, and Pedn-an drea Mines (Granville Sharp); Mines and Mining in Gwennap (R. Symons); Pennerley Mining Company; Silver Mining; New Consols Mines, and its Management; New Consols Mine, and the Concentration of Copper Ores; New Consols Mine (E. Skewes); Gold in Australia—Tin Mining in Australia —Ozokerit for Preserving Metals—The Bazin Dredger in Gold Mining—The Coal and Iron Industries of India—Talybont Silver Lead Mining District—Tin Dressing—The Scotch Mining Share Market—Furnaces for Roasting Ores—Treating Sodium and Potash Salts—Raising and Preparing Coal for Market—Slag Blocks for Tramways—Gazetteer of Cornwall—The Alkali Trade—Tables for Mechanical Engineers—Foreign Mining and Metallurgy —Sales of Copper Ores—Extracting Metallic Zinc—Vertical Boiler, with Radial Water-Tubes—Patent Matters—Meetings of La Manche, Tharsis, Santa Barbara, Flagstaff, Rio Tinto, and other companies, &c.

MR. W. MARLBOROUGH, STOCK AND SHARE DEALER 29, BISHOPSGATE STREET, LONDON, E.C. (Established 20 Years), can sell the following SHARES, at prices annexed:—

10 Alltami, £5.	15 Gorsedd & Mer., £5.	100 Port Phillip, 10s.
50 Almada, 6s. 6d.	10 Grogwinion, £4½.	75 Pestarena, 4s. 3d.
20 Argentine, £4¼.	30 Glyn, £1½	25 Pandora.
50 Bodidris, 23s. 9d.	20 Glenroy, £1⅜.	60 Parys Mount., 7s. 3d.
40 Birdseye Creek, 16s. 6	40 Gold Run, 10s. 9d.	50 Penstruthal, 10s. 3d.
50 Chontales, 6s. 3d.	60 Great West Van, 6s 6d	5 Roman Gravels, £12⅜
30 Condes of Chili, £3⅝.	20 Hingston, 13s.	20 Rookhope, 18s. 9d.
10 Colorado, £1 15s.	40 I. X. L., £¼.	10 Richmond, £6⅛.
20 Chicago, £4¼.	10 Leadhills, £6¼.	25 South Darren, £2½.
50 Derwent, £1 13s. 6d.	1 Listurne, £60.	50 South Aurora, 6s.
15 Eberhardt, £8¼.	1 Minera, £17½.	7 Tankerville, £8⅜.
40 Exchequer, £1 11s.	30 Marke Valley, £1.	40 Van Consols, £1 17s
25 East Caradon, 15s. 6d.	80 Malabar, 5s. 6d.	2 Van, £34.
25 Frontino, £1 17s. 6d.	10 Nth. Laxey, 14s. 3d.	10 Wye Valley, £3⅞.
25 Flagstaff, £2 14s. 6d.	10 Pennant, £5⅛.	20 W. Tankerville, £1 6s.
	60 Pennerley, 10s. 6d.	

SPECIAL BUSINESS in Cakemore and Monydd Gorddu.
Shares Bought and Sold at net prices. Telegrams promptly attended to.

ZINC ORES.

ARMAND FALLIZE,
INGENIEUR-CIVIL, A LIEGE (BELGIUM
BUYER
1.—CARBONATED AND OXYDED ZINC ORES (CALAMINE, &c.
2.—ZINC AND LEAD ORES MIXED TOGETHER, BUT DRESSABLE KINDS ONLY

CAPPER PASS AND SON, BRISTOL,
PURCHASERS OF
LEAD ASHES, LEAD SLAGS, SULPHATE OF LEAD, HARD LEAD, BRASS SLAGS AND ASHES, COPPER REGULUS, MATTE, SCORIA, TIN ASHES, TERNE ASHES, &c., and MIXED ORES or REFUSE, containing LEAD, COPPER, TIN, or ANTIMONY.

GEO. G. BLACKWELL,
5, CHAPEL STREET, LIVERPOOL,
PURCHASER OF
MANGANESE, ARSENIC, FLUOR-SPAR, WOLFRAM, BLENDE, CALAMINE, CARBONATE and SULPHATE OF BARYTES, ANTIMONY ORE, CHROME ORE, MAGNESITE, EMERY STONE, PUMICE STONE, OCHRES AND UMBERS, CHINA CLAY, LEAD ORE FOR POTTERS, TALC, &c.

T. R. GLOVER,
MINERAL DEALER AND BROKER AND GENERAL FINANCIAL AGENT
2, EXCHANGE STREET EAST,
LIVERPOOL.

F. M. F. CAZIN,
MINING AND CIVIL ENGINEER
At SANTA FE, NEW MEXICO, U.S. OF AMERICA,
Has 24 years' experience in Mining and Smelting, and 10 years' experience in American Business and Law, offers his services at moderate charges for Reporting on Mining and other Property in any of the above-named States or Territories; gives correct, safe, and responsible advice as to securing full titles and possession; and, as to best mode of utilising the property, will assist in settling existing difficulties by compromise, and in disposing of developed mining property when held at real value; offers his assistance for securing undeveloped mining properties at home prices. As to care taken in reporting, reference is made to the *Mining Journal* Supplement, April 1, 1876, containing report on property of the Maxwell Land Grant and Railway Company; as to technical standing, to the prominent men of the trade—compare *Mining Journal* of Aug. 30 and Nov. 31, 1872, and *New York Engineer and Mining Journal*, Feb. 28, 1874.

HENRY SEWELL, M.E., F.R.G.S.,
LONDON ADDRESS:
10, UPPER WESTBOURNE TERRACE.

Mr. E. JACKSON,
Associate of the Royal School of Mines,
ANALYST AND ASSAYER.
Assays or Complete Analyses made of Copper, Silver, Lead, Zinc, Tin, and other Ores. ASSAYING TAUGHT.
106, QUEEN VICTORIA STREET, LONDON, E.C.

ON ACCOUNT OF WHOM IT MAY CONCERN.
On TUESDAY NEXT, MAY 1, 1877, at One o'clock, at the Law Association Rooms, Cook-street, Liverpool,
ABOUT FIVE HUNDRED TONS ROLLED "MOISIC" CHARCOAL BAR IRON (flat), 3½ in. by ⅝ in. full, in Lots to suit purchasers. Lying in warehouses in Liverpool.
ALSO,
About SIX THOUSAND FOUR HUNDRED IBBOTSON'S PATENT STEEL FISH-PLATES, suitable for a 35 lbs. rail, weighing 23 tons. Lying in Albert Dock Warehouses. Sample can be seen at Messrs. John Senior and Co.'s Office, 17, Sweeting-street; or at the Broker's Office, Phœnix Chambers, Liverpool. MATTHEW HORAN,
Broker to the Liverpool Underwriters and Protection of Wrecked Property Associations.

METALS.

HOUSES ENGAGED IN THIS TRADE, and desirous of EXTENDING their CONNECTION in the SOUTH OF FRANCE, principally for the SALE of TIN and COPPER, are requested to communicate with Mr. ARTHUR RICHARDSON, Jun., Metal Broker, 206, Rue Paradis, Marseilles, who is in a position to establish regular and valuable connections in this line. Highest references.

THE ELLISTOWN NEW COLLIERY
Being now in full working order,
The ROASTER MAIN COAL,
The finest in the District,
Can be supplied at the same price as that of the Main Coals of inferior quality usually sold in the Leicestershire Districts.
Orders promptly attended to.
Applications to be made to—
MR. THOS. MILLERSHIP, MANAGER,
ELLISTOWN NEW COLLIERY, BAGWORTH, LEICESTERSHIRE.

G. E. SIMPSON, STOCK AND SHARE DEALER, 6, GREAT WINCHESTER STREET BUILDINGS, LONDON, E.C., will SELL the FOLLOWING SHARES, free of commission:—

15 Assheton, £1 1s. 6d.	10 Fortuna, £6 7s. 6d.	50 Pennerley, 8s.
30 Almada, 7s. 6d.	30 Flagstaff, £2⅞.	30 Port Phillip, 10s. 6d.
20 Australian, £2 1s. 3d.	25 Glyn, £1⅜.	20 Pennant.
40 Argentine, £4 7s.	15 Gorsedd.	30 Richmond, £6⅛.
30 Bodidris, 22s. 6d.	50 I.X.L., 19s.	20 Roman Gravels, £12¼
20 Colorado, £1 10s.	20 Linares, £5¾.	20 Russia Copper, £2.
5 Cape Copper, £40½.	40 Ladywell, £1 8s. 9d.	10 S. Condurrow, £7 7s 6
30 Don Pedro, 10s. 6d.	20 Leadhills, £6¼.	20 S. Australian, £2.
10 Devon Con., £4 7s. 6d.	25 Marke Valley, 17s. 6d.	15 Tankerville, £8.
20 Eberhardt, £8.	20 North Laxey, 15s.	5 Van, £35.
30 East Van, £5 8s. 9d.	15 New Quebrada, £3¾.	30 W. Tankerville, £1 7 6
40 Exchequer, £1⅝.	40 Parys Mount., 8s.	

MR. JOHN B. REYNOLDS
STOCK AND SHARE DEALER,
NOS. 70 AND 71, BISHOPSGATE STREET WITHIN,
LONDON, E.C.
BUSINESS TRANSACTED IN STOCKS AND SHARES AT NET PRICES.
Established 19 years.
Bankers ... ... City Bank.

VAN LEAD MINE.—Particulars of this very valuable Mine will be found in the SIXTH EDITION of Mr. MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., price 2s. 6d. The Prefaces to the Six Editions price 1s.
8, AUSTINFRIARS, LONDON.

TANKERVILLE.	ROOKHOPE.
ROMAN GRAVELS.	NORTH LAXEY.
GREAT LAXEY.	GLENROY.
MINERA.	WEST TANKERVILLE.
LEADHILLS.	PANDORA.
DERWENT.	

Full particulars of the above and other valuable LEAD MINES will be found in the SIXTH EDITION of Mr. MURCHISON'S work on BRITISH LEAD MINES, published THIS DAY, with Maps, &c., 2s. 6d. The Prefaces to the Six Editions, 1s.
8, AUSTINFRIARS, LONDON.

"Contains a good deal of information that may be useful at present. Mr. Murchison's theory is briefly that on the average British Lead Mines have less of the lottery element in them than any others, and the figures he gives seem to support that view; at all events, those interested in this industry will find his facts and observations worth reading."—*Times.*
"Calculated to be a great benefit to investors."—*Mining Journal.*
"We have great pleasure in recommending his treatise."—*Morning Post.*
"We invite capitalists to look into this means of investment."—*Money Market Review.*

Notices to Correspondents.

*** Much inconvenience having arisen in consequence of several of the Numbers during the past year being out of print, we recommend that the Journal should be *filed* on receipt; it then forms an accumulating useful work of reference.

BAMPFYLDE.—If an "Anxious Shareholder" (Birmingham) was to have the mine inspected and reported on by a mining surveyor from the immediate district (say, Capt. J. Pope, Barnstaple), I have no doubt but he would get the information he wants.—MINER.

WHEAL COATES—"F. L. P." (Cornhill).—The mine does not appear to have offices in London, but business was done on the London market during last week at 1¼, being a slight discount, and the lode in the shaft was reported to be improving, and now worth 40 lbs. of tin to the ton of stuff, or 2*l.* per fm., whilst the cost of sinking was 18*l.* per fathom.

SOUTH AURORA CONSOLIDATED MINING COMPANY.—I am rather surprised that the shareholders of this company are not favoured with reports (through your valuable Journal) as to what is being done in the many undertakings the directors have in hand. Surely some progress should have been made long ere this, and the shareholders informed of what is actually being done. I, as a large shareholder, would be glad with a reply; no doubt, there are other shareholders, like myself—PATIENTLY WAITING.

Received,—"V. and D." (Downieville, Cal.)—"H. C." (Pontypool)—"J. V."—"W. G."—"J. B. B."—"Shareholder" (Van Consols)—"Subscriber" (Leeds): Next week—"M. W." (Lincoln)—"Shareholder" (Edinburgh): You must write to the journal complained of; we could not insert strictures on opinions expressed in our contemporaries—"Mercator" (Neath): Yes—"H. C." (Llanidloes): The letter has been forwarded—"Shareholder" (New Consols): The letter is too personal for publication—"An Economist" (Redruth). We shall be glad to have a communication, as proposed.

THE MINING JOURNAL,

Railway and Commercial Gazette.

LONDON, APRIL 28, 1877.

THE IRON TRADE, AND ITS PROSPECTS.

The quantity of coal raised in Great Britain is as follows:—

In 1875 ... ...Tons		131,867,105
In 1876		134,125,166
Increase ... ...Tons		2,258,061

The quantity of coal raised in the district of South Durham in the same periods was:—

In 1875 ... ...Tons		19,456 534
In 1876		19,073,056
Decrease ... ...Tons		383,478

These figures show that while most other districts have made an increase in the output of coal in the year 1876, as compared with 1875, the district of South Durham has diminished in output to the extent of 383,478 tons in the year 1876. The explanation of this diminution in quantity is to be found in the lifeless condition of the manufactured iron trade in the North of England, which absorbs a large proportion of that kind of coal known as manufacturing coal, the product usually of seams of coal of third-rate quality; this cannot fail to have an injurious effect on the collieries producing this class of coal. The collieries in Durham producing house, gas, and coking coals are to some extent affected by this falling off in the manufacture of iron, for these last named collieries have to a greater or less extent supplied also manufacturing coal from inferior seams, so that the diminished demand for coal has in its effects spread to the whole coal producing district of Durham, and has, with the largely increased means for output of coal generally throughout England, operated in lowering the prices universally. The price of coal having come down so much, no alternative has been left to the owners of collieries but to reduce miners' and operatives' wages, and to exercise rigid economy with regard to the use of materials of all kinds. Miners' wages in Durham are now regulated by a sliding scale, having recently been reduced 7½ per cent. in accordance with the regulations of the sliding scale—they will move up or down as the price of coal varies, which will be averaged periodically. In the Northumberland district (where the sliding scale is not in operation) relief is being sought from the present unsatisfactory state of matters by a further reduction of 10 per cent. in wages, and a payment in rent for dwelling-houses and coal, which in Northumberland and Durham have hitherto been allowed free. There can be no question that wages could be arranged—both in the iron and coal trades—on the principle of the sliding scale, the selling prices of iron or coal being taken at short intervals, so that wages would always be somewhat in accordance with the selling price of the material, and the differences as to wages between owners and workmen would thus be avoided.

The quantity of ironstone raised in the Cleveland mines was—

In 1875 ... ...Tons	6,035,541	In 1876 ... ...Tons	6,564,000

Showing an increase of 478,459 tons in 1876 as compared with the quantity worked in 1875.

The make of pig-iron in the North of England district has been—

In 1872 ... ...Tons	1,968,972	In 1875 ... ...Tons	2,017,763
1873	1,999,421	1876	2,068,000
1874	2,001,233		

These figures show a gradual increase of make in each year up to the present time. The export of pig-iron from Cleveland has increased considerably during the last year (1876) to other parts of England, Scotland, and foreign countries. One-twelfth, probably, of the make has gone to stock during the year, which will account for the output of pig iron being maintained in spite of the limited demand for manufacturing purposes in the district. The rail manufacture in the North of England is shown by the following table to be in a declining state. The quantity made in the—

		Tons.	Price.
Quarter ending	Feb. 29, 1876	38,000	£6 14 5
ditto	May 31	28,971	6 11 8
ditto	Aug. 31	22,133	6 3 9
ditto	Nov. 30	18,489	6 0 10
Total		107,593	

The price of heavy rails at the present time is about 5*l.* 15*s.* per ton. It is evident this branch of the trade has got into a state of great depression, and for its revival some radical change must be sought. The firm of Messrs. BOLCKOW, VAUGHAN, and Co. are erecting new works at Eston, where they purpose making steel rails, and doubtless other firms will follow, seeing that the demand for this material is so greatly in the ascendant as to have almost swamped the iron rail trade of the North of England. The make of iron rails a few years ago reached 350,000 tons in one year in the district.

The manufacture of iron-plates for shipbuilding in the North of England district has largely increased of late years. The make of this material was in the—

		Tons.	Price.
Quarter ending	Feb. 29, 1876	40,000	£7 14 2
ditto	May 31	45,659	7 13 0
ditto	Aug. 31	38,347	7 8 6
ditto	Nov. 30	46,236	7 3 5
Total		170,242	

This branch of the iron trade is also threatened with competition from the introduction of steel plates, now used to some extent for shipbuilding; so far this has not affected the trade of this district, the manufacture of iron plates being still on the increase.

Steel as a material for construction has come extensively into use for rails, ship plates, and the parts of machinery, wagon wheels, tyres, and axles, pit cages, trams, boiler tubes, &c. The quantity of bars and other kinds of finished iron in the North of England in the year ending Nov. 30, 1876, was about 150,000 tons.

The quantity of railway iron exported from Great Britain to Russia in the year 1876 was 86,181 tons, showing a falling off of 25,062 tons, as compared with the quantity exported in 1875. Russia is developing her immense natural and mineral resources, so that at no distant date we may suppose that this country will be independent of foreign aid for railway requirements. At present, however, we are told that large contracts for steel rails are in hand for Russian railways in the works at Sheffield.

The supply of railway iron to Turkey in 1876 from Britain was 422 tons, against 10,653 tons in the year 1874; this great decrease in the export of iron being due, we may suppose, to the unsettled state of affairs in Turkey, and the bad faith displayed in their monetary transactions. It is not that its mineral wealth is at all fully developed, or its railway accommodation sufficiently extended for this purpose, but the causes above referred to stand in the way of the improvement of a fine country. About one half of the railway iron exported from Britain in the present year has been sent to Canada, East India, and South Australia; and these countries, with New Zealand, the South American countries, and we hope Africa and China, will continue to draw on our manufactures, and to a greater extent than hitherto. There is a wide field for the supply of iron or steel rails from Great Britain to the various countries possessing railways in Europe, Asia, Africa, America, and Australia, the length of line opened in each country being given in an article on railways, and inserted in the Supplement to last week's *Mining Journal*.

There is no doubt that there is a great future position for railways, and that the requirements of European, Asian, and African countries will in the future call forth all the energies of manufacturers of railway iron to supply the material at a cost equal, if not lower, than can be supplied from other manufacturing countries, where, as in Belgium and Germany, wages are probably about one-half what they are in England, when all things are considered.

Mr. I. LOWTHIAN BELL visited America last year. From what he then saw he believes the export of iron to the States of America has come almost to an end. Although about three times more of coal is raised in Britain than in the United States, yet the area of coal fields in the latter is 30 times the area of ours. They produce anthracite well adapted for smelting iron, as well as cannel, gas coking, and steam coal. Besides these there are thousands of acres of forest in a neglected state; the timber from them is utilised in making charcoal iron. A blast furnace will consume about three square miles of timber in one year. The make of charcoal iron in the year 1875 was about 600,000 tons, about one-fourth of the produce of the whole United States. Ironstone is equally abundant, but in many cases situated at a considerable distance from a coal field (in one instance 500 miles), so that charges for its transit are in this and some other cases heavy. The great deposits of iron ore at Margarette, near Lake Superior, and of the Iron Mountain, near Lake Champlain, Missouri, are both rich, and free from deleterious matter. The ore bank at Lebanon, in Pennsylvania, is also a huge mountain of ore, easily extracted, but inferior in quality to those named above. In Alabama and Georgia there are immense deposits of brown hematite and red fossiliferous ore. Limestone suited for smelting purposes is abundant; thus there are all the materials in the United States for the manufacture of first-class iron and steel. In Alabama these three materials are deposited near together at the Warrior coal fields; where, moderate wages paid to artizans, there is no district, Mr. BELL believes, which has greater facilities for producing iron cheaply; its greatest disadvantage is the distance from the seaboard.

Seven or eight years ago the United States was our best market for iron, importing from us about a million tons in a year. At present this trade is almost extinct, and it is unlikely we shall ever regain the place we so recently occupied. The immediate cause of this falling off of imported iron is the imposing of 60 per cent. duty on the price of pig-iron by the ruling powers in the United States; this, however, has not prevented the makers of iron in that country from suffering from a depression in prices equally with ourselves.

In 1871 the export of iron and steel from this country to the United States was ... ...Tons	1,185,000
In 1875 the export was only	141,000

FLOODING OF COLLIERIES.

One of the most marvellous incidents in connection with colliery catastrophes was the rescuing of the Welsh miners after having been entombed for nine days without any sustenance whatever—a feat unparalleled in our history. The highest possible praise for having brought them to the bank alive is due to the gallant band of workers for the untiring energy they displayed in reaching the imprisoned men, at the risk of their own lives. But in all colliery disasters the miners have ever shown the greatest courage in facing every danger, and it is on these occasions that instances of more than ordinary bravery have been brought into prominence. At the same time, everyone throughout the land, from the highest to the lowest, cannot but express their admiration for the calmness and patience with which the men and the boy awaited their fate. Having thus paid a tribute to those who are so well entitled to it, we turn to another phase connected with the sad event, which we doubt not will be duly enquired into, and in doing so we purpose to speak of the flooding not only of the colliery in South Wales, but of others as well.

Water in a mine is only second as regards danger to fire, and should be equally as well guarded against, but it is to be feared that such is not frequently the case. Mining engineers and underviewers may look well to ventilation, so as to prevent an explosion, as the great danger to be encountered, yet they seldom think it necessary to constantly keep a good look out, so as to prevent any influx of water. But the flooding of collieries has cost from time to time many valuable lives. So far back as 1815, at a colliery a short distance from Newcastle-on-Tyne, 90 men and boys were shut up in the rise workings by the water breaking in upon them from an old mine, cutting off all means of escape, as the water rose several fathoms in the shaft. Here the water broke through from disused workings, as was the case at the Troedyrhiw Colliery. In noticing the occurrence at Newcastle, Mr. DUNN, the Government Inspector of Mines, said—"No authentic plans of the old inundated workings were extant; the only method of procuring the coal and guarding against the inundation of these waters was by a series of boring drifts. At length the drifts had arrived at trouble of no great magnitude, but at which the coal was weak and soft, and here it was, either by neglect or inadvertence, the ordinary thickness of coal had been reduced till it gave way under the extreme pressure." This it may be said has generally been the case in all serious colliery inundation, the barriers between the water and the place where men are working being too slight to resist the pressure, or owing to not knowing how close they are to old and abandoned workings, the men send their picks right through, and so give a passage to the pent-up water. Of this we have had many instances, where not only many lives have been sacrificed, but valuable property as well.

At Workington in Cumberland, just 40 years ago, two pits were suddenly filled with water from the sea. The miners were working a 10-feet seam, with a rise of 1 in 3, up to within 20 fms. of the sea, and at this stage of progress the manager proceeded in a reckless and unguarded manner to attenuate the pillars, already scarcely sufficient to afford support to the superincumbent strata, so that 36 men and boys, the same number of horses, as well as a large amount of valuable property were lost. Recklessness, ignorance, and looseness of management have been the cause of most of these accidents, for nearly all of them have been preventible, and those in whose hands are entrusted so many lives have no excuse when accidents take place that with care and attention would never have occurred. One of our ablest mining engineers some years since drew attention to the means for preventing accidents to life and property arising from the inundations of coal mines. He held that there should be accurate surveying and mapping, a due consideration of the lithological character and properties of the rock dividing the surface or underground water from the places of the mine in progress; the carrying of narrow exploring drifts in the subterranean districts where water may be expected, with bore-holes in advance, the length of the holes depending very much on the tenacity and texture of the material being excavated; supporting water with strong and durable dams when it is to be kept to the rise of the working parts of the mine; and by leaving pillars of the materials being worked sufficiently strong to support the roof. But one of the great essentials to prevent the flooding of collieries is the keeping of accurate plans of the underground workings, so that when a mine is worked out or filled with water the manager or engineer of the mine adjoining may with confidence, from the knowledge he has acquired of the former, direct the workings to a certain point towards the drowned-out mine, and so save all the anxiety and danger attendant on going towards a place of which they know nothing. There it is indeed where the great danger lies, for a number of men may be working in a place in the deep workings of a mine where to the rise of them is a vast sheet of water, only kept back from annihilating them by a thin barrier of coal, which one of them, from ignorance of its proximity to him, may break into with his pick. How necessary, then, it is that in such collieries the managers should not only be men of practical experience, but constantly on the look out for danger from any and every cause, and with plans of the underground workings be able to tell the workmen how far it would be safe for them to go in a certain direction. Armed with a full knowledge of his own mine, and all that surrounds it, with ordinary precautions on the part of the manager accidents from inundations of water would be almost impossible. But want of care often does as much harm as want of knowledge, so that frequent examinations of the working places of a colliery should be made when men are driving in the direction of an old mine or abandoned place. As we have before stated, there should be accurate surveys registered and available at any time, a thorough knowledge of the rock separating the working places from the water, constant boring where water is suspected to be near at hand, and strict supervision on the part of the manager and discipline of the subordinate officials and the workmen. With such a system of working and managing as we have pointed out there would be no flooding of mines or lives lost; but the neglect of any of them will always tend in the contrary direction. What was the course adopted to prevent danger from flooding at the colliery in South Wales which has led to the public taking such a deep interest in all that relates to it, we have as yet no information, but no doubt we shall be made acquainted with it in the course of the Coroner's enquiry, and until that is over we do not intend further noticing the matter, lest we should be considered as prejudging it.

PRODUCTION OF SALT.

Of the many minerals raised in the kingdom few play a more important part, or are less noticed, than that which is found in every household throughout the land—salt. It is an essential that we could not dispense with, not only as a culinary ingredient, but in many other ways. Our resources, too, are such that they have not only been fully equal to the wants of our own population, but we have been able to spare yearly from 200,000 to 250,000 tons to other countries that are not so favoured as ourselves. There are districts in many parts of the country where salt could be met with were such necessary, for some time since, whilst boring near Middlesborough in the expectation of meeting with the coal measures, rock salt was met with at a depth of 1800 ft. At the Moira Colliery, near Ashby-de-la-Zouch, in Leicestershire, at a depth of 593 feet, salt water, beautifully clear, trickles down from the fissures where the coal is being worked. The brine is taken to Ashby, and has been in good repute for rheumatic and other complaints. As to the origin of salt, there are many theories, but it may be stated that in nearly all substances, wherever found, it is in the New Red Sandstone. By many it is believed that the formations are due to the evaporation of the water from inland salt lakes or parts of the sea severed from the main body of the ocean by volcanic action, the evaporation causing the deposit of the salt held in solution by the sea. Writing more recently on the subject of the great European salt deposits, Mr. T. WARD propounds a rather different theory. He considers that the salt deposits owe their origin entirely to the elevation of the mountain chains with which they are so intimately connected, during which small valleys and ravines would be cut off from connection with the sea by ridges of land, and would form salt lakes and lagoons. Cheshire is still the main source from which we draw our own supplies, and export to the United States, Russia, and other countries. There we have had considerable landslips in working it, but there are the red rocks showing keuper or saliferous marl, with thin beds of limestone, and then 200 ft. of rock salt. In Worcestershire, at Droitwich and Stoke Prior, the salt is made from brine alone. A large proportion of what is made at Northwich, Middlewich, and Winsford, in Cheshire, is sent down the River Weever, the quantity in 1867 having been 772,175 tons, and in 1866 it had increased to 1,118,991 tons. During the last 20 years, however, the increase in the production has been of a most marked character, whilst the price has gone down very much. In 1855 the salt raised in the kingdom was 1,094,770 tons, the average price at the works being about 24*s.* per ton. In 1875 there was raised 2,316,044 tons of salt, the price being barely 14*s.* 6*d.* per ton. The value of the salt exported in 1855 was 347,714*l.*, and in 1875 it was only 172,051*l.*, when our exports were 916,463 tons, or nearly as much as the entire produce of the kingdom in the former year. Our principal customers include the United States, British India, British North America, and Russia. From the figures given it will be seen that nearly 40 per cent. of the salt produced in the kingdom is exported to other countries.

CURRENT ASPECTS OF CREDIT.

Some observations which we recently made as to the immense effect of credit upon modern human affairs have been reproduced approvingly in one of the leading journals of New York; and we are rather glad that this has been the case, since in no quarter of the world is it so desirable that sound economic ideas should prevail as in the United States of America. But what are we to say as to the recurrence of one of those hereditary wars which have so often drained the resources and exhausted the strength of Russia and Turkey in the past? In the presence of such an afflicting calamity are we not tempted almost to despair of the progress of large masses of the human race? Turkey violated the laws of credit in October, 1875; in April, 1876, she disregarded them still more; and are we affirming too much when we remark that during the past twelve months Turkey appears to have been slowly falling back into barbarism? And what of Russia? Certainly Russia has thus far proved herself a credit-respecting country, and she seems to have hesitated long before she decided upon once more crossing swords with Turkey. Credit and financial strength certainly have been more regarded by Russian statesmen than by Turkish ministers, but even Russia is still influenced apparently by her old spirit of ambitious aggression; and although the creditors of Russia have thus far had no cause to complain it is not at all clear that Russia will be enabled to sustain the strain of a great war, and meet at the same time with punctuality the coupons falling due upon her bonds. The circumstances of Russia are very different in 1877 from what they were in 1854. In 1854 her public debt was comparatively moderate, and the capitalists of Europe, large and small, were willing to take her bonds. Now, they are at a discount of from 25 to 30 per cent.; the volume of them in circulation has been greatly increased; and what is worse still, perhaps, investors are greatly discouraged, and feel little confidence in the future of Russian finance.

The Old World is once again, in short, in a sad mess, and the hopes of capitalists—and especially probably those of small capitalists—will be turned to other quarters. There will be in all likelihood a large flow of such fresh capital as we can accumulate to the best of the British colonies. That flow has, indeed, been already taking place as regards the Australian colonies, the Cape of Good Hope, and one or two other settlements, to say nothing of British India. The aspect of Anglo-Indian affairs is, however, not exactly all that could be desired at present. In Canada, also, there is great prostration and exhaustion; and although the United States might, one would fancy, profitably absorb and employ a very large amount of British capital, the aspect of many of the great American railroad and other enterprises is at present not very inviting. The fairest field just now for the employment of our spare labour and our spare money would appear to be the Australian colonies; but even they may be overdone, since they are very dependent upon a good demand for their wool upon the European markets; and general depression in Europe must react, to some extent, upon the price of Australian wool. In the United States business appears at present

…e in a most stagnant and disorganised state; but the advance in …rice of wheat—an advance already amounting to from 5s. to 6s. …quarter—must give a stimulus to American agriculture, and such …timulus would probably benefit American trade generally. …he Russo-Turkish conflict, occurring as it does in a season of …eral depression and stagnation, is a great disaster. We required …se and peace at such a time as the present, and in lieu of repose …peace we are afflicted with turmoil and war. What will be the …cts of the struggle upon the iron trade and the general industries …his country it would be rash at present to predict, but we can …ely suppose that they will be favourable. The probability is …t credit will be still further weakened for a time, and that even …reased caution will be exhibited by the public in the selection of …ir investments. This may be all very well, but excessive caution …lls all speculative enterprise, and unless there is a little specula… enterprise the business of the country must remain in a stagnant …e. Hoarded capital may be better than nothing, but it is not …tiful capital. What we appear to require just now is something …the happy medium between excessive caution and rash speculation. …1872 and 1873 rash speculation was in the ascendant; the exces… caution which now prevails appears to be almost as disastrous.

INDIAN RAILWAYS—TENDERS FOR MATERIALS.—In consequence …the famine which exists in Southern India, the Supreme Govern… …nt requested the board of directors of the Madras Railway Com… …y to double their system to Arconum, a distance of 37 miles, for …e purpose of facilitating the grain traffic. Tenders were accord… …ly invited for the necessary materials, consisting of rails, cast… …n sleepers, fishing plates, bolts and nuts, and gibs and cotters, and …understand that the following firms were successful in obtaining …ders, to be executed quickly:—

…est and Co. (Dowlais Iron Co.) …	Rails.
…derston Foundry Co. (Middlesbro')	Cast-iron sleepers.
…rlington Iron Co. (Darlington) …low Vale Co. (Newport) ……	Fishing plates.
…Warden and Sons (Phœnix Nut …and Bolt Co., Birmingham) ……	Bolts and nuts.
…nkins, Gilkes, & Co. (Middlesbro')	Tie bars, and gibs and cotters.

…ilers were also recently invited for 10 locomotive engines of a …ue type, which were given to Messrs. Kitson and Co., Leeds, and …y have since been asked and have undertaken to construct 20 more …the same kind, making in all 30 locomotive engines, the whole to …e ready for shipment at an early date.

MAKING THE BEST OF OUR INDIAN MINERALS.—The Govern… …ent of India have determined to move with the times, with the …ew of utilising the ironmaking materials which they possess in …e Central Presidency, where at Worrora, it will be remembered, …r. Walter Ness, mining engineer, formerly of Glasgow and South …fordshire, has developed a considerable colliery, and has so well …ained the colliers that they are becoming quite proficient in the …siness of coal hewing, though it still requires four natives to do …e much work as is usually done by one collier in England. Mr. …ess's experiments with the very rich iron ore and the limestone, …hich are abundant in the same district, whilst they have con… …nced him that they cannot be smelted by the blast-furnace, still …e capable of being used up by one or other of the direct methods …hich have been adopted, if not in this country, in America. Under …he direction of the Government Mr. Ness has shipped nearly 100 tons …f coal, iron ore, and limestone, and will himself follow it to Eng… …nd by the Bombay mail at the close of this month. At home he …ill experiment with such systems as may seem to him to offer the …ost facilities, and if he should not be able to attain all the suc… …ess he desires in England he will go over to America. Mr. Ness …ill likewise investigate the methods of making patent fuel prac… …ised in this country, in the hope of finding some suitable for adop… …ion in India, whither likewise he will upon his return take out coal-… …utting machinery, if whilst here he should find that there is any …pplicable to use in the Indian pits.

COAL AND IRON IN THE UNITED STATES.—Pig has been rather …ading downwards in price upon the Boston market. Rails have …lso been very quiet at Boston. At Pittsburg there is expected to …e no dearth of orders for steel for some time to come. The con… …sumption of steel appears to be still increasing in Pennsylvania; …n consequence of its cheapness—or, at any rate, its comparative …heapness—it seems to be more and more taking the place of iron. …The position of the pig-iron trade at Pittsburg is considered to be …carcely so favourable. There has not been much doing in Scotch …pig upon the New York market. Glengarnock has been quoted at …$25 to $26 per ton currency. Eglinton at $24¾ to $25 per ton cur… …rency; and Coltness at $27½ per ton currency. The quotation for …iron rails is $35 to $38 per ton currency; and for steel rails $49 to …$50 per ton currency at the mills. As regards the New York coal …market it may be observed that prices, under the influence of a new …"combination," have ruled somewhat firmer, and dealers report a …better feeling in the trade; at the same time the actual selling prices …are stated to be not quite up to circular rates. The movement of coal …and coke on the Pennsylvania railroad to March 21 this year was …1,053,714 tons, of which 841,703 tons were coal.

REPORT FROM MONMOUTHSHIRE AND SOUTH WALES.

April 26.—As already announced in the Journal of last week, to …the intense relief of the whole district—nay of the whole country—…the five imprisoned colliers were safely extracted from their peril… …ous situation on Friday afternoon last. Seldom has so much ex… …citement been felt in this country at a colliery accident. All honour …to those gallant few who, at the risk of their own lives, worked …manfully till the barrier was thrown down, and their fellows brought …once more to light and liberty. Pleasing indeed is it to learn that …Her Majesty the Queen has resolved to extend the Albert Medal to …the saving of life on land, and the heroic Welsh miners will be the …first to receive this coveted honour. Subscriptions have been flow… …ing in from all quarters, and meetings at many local towns have …been held. The men are all expected to survive, and are progress… …ing favourable. The bodies of two of the four men left in the pit …have been brought to the surface. Such has been the interest taken …in the above accident that people have forgot to discuss the im… …minence of war, and now the long expected news has come it is to …be expected that both the iron and coal industries will improve to …some extent. There has been as yet no alteration of any material …movement of importance either in the demand for iron or in prices, …which for finished descriptions continue very low. The shipments …made during the week have been principally to the Baltic ports, …and have been mostly rails. There is a falling off apparent in the …foreign demand for bars. At the steelworks business continues …fairly brisk. Tin-Plates are firm, but the aspect of the trade gene… …rally is unaltered. It is announced that the Tydee Works are closed, …and liquidation proceedings are talked of.

The coal industry has as yet not been materially affected by the …war news. Prices are still low, although there is a good demand …for steam qualities. For house coals there is very little demand …apparent. Patent fuel a slow sale.

The old workmen of Mr. R. T. Crawshay, Cyfartha, have presented …to him an address on his return home. The reply of this gentle… …man—as an authority in all matters relating to the staple trades—…ought to be read by every workman throughout the district. He …says, speaking of Unionism, "You (the workmen) threw your old …master overboard, and took to strangers and broke the tie between …yourself and me. When the Unionist deputation came to me at the …Castle I asked them to give me a fortnight to work off an old order …of rails, and they refused, and I then told them the tie was broken, …and from that day to this it has been. As far as the Union is con… …cerned I ought not to say a word against it, for it has saved me …thousands. I should never while I had any money left have stopped …the works if you all had not left me and joined the Union." Speak… …ing of depression in trade he further remarks, "The times are now …so bad that I believe every works which is going is losing money. …I know that I have lost money for years, and have not made a …single farthing by the works since they have been in my sole pos… …session. * * * The coal trade is also nearly as bad as the iron …trade; every ton of coal I lose money on by selling." It is believed …that in the course of a day or so two furnaces, affording employment …for about 100 men, will be re-lighted at the British Works, Aber… …sychan, near Pontypool.

A highly satisfactory dividend, considering the depressed state …of the coal trade, has just been declared by Richards and Company …(Limited). For the half-year ending March a dividend at the rate …of 10 per cent. per annum will be paid.

The Nant-y-Glo and Blaina Company, having enforced a reduc… …tion of 10 per cent. in the wages of their colliers, it was feared that …a strike would be the result. Wiser counsels have, however, pre… …vailed, and the men have gone to work quietly at the reduction. …About 100 men have been thrown out of employ at the Aberdare …Merthyr Coal Company's Colliery, Hirwain.

The Burry Port Smelting Company is to be wound-up in liquida… …tion. The admitted liabilities are about 164,000*l.*, and the assets …only 18,611*l.*

At the Pontypridd Police Court Mr. Thomas James, manager of …the Mardy Colliery, has been fined 15*l.* and costs for allowing 20 men …to work in a mine with less than two shafts.

REPORT FROM CORNWALL.

April 26.—It is very little use talking of the tin standards in the present day. Each smelter appears pretty well to do that which is right in his own eye. At any rate, there is no such general agree… …ment amongst them as would justify the quotation as absolutely …final of an official set of figures. This is a not uncommon result …alike when the trade is very depressed or very active. Individual …interests are then sure to press to the front in a manner not usual …at any other time. Perhaps we shall see a little improvement now …that war is declared; though we are by no means sanguine that …under present conditions such will be the result. If the war is con… …fined to the present combatants there cannot be much prospect of …an extra demand for metals, and if it extends—though the metal …market will certainly improve—there will be something very ma… …terial to set off.

Although there is as yet by no means so much faith in boring ma… …chines in the county as one could wish to see, still it is satisfactory …to find that the desire for information, at any rate, is progressing. …It may be conceded at the outset that it by no means follows be… …cause a boring machine succeeds well in one mine or set of mines …that, therefore, it must succeed well in all others. The circum… …stances have always to be taken into consideration, and when the …ground is easy, or when the operations are of a restricted character, …it may very well be that the introduction of boring machinery may …not be expedient. Nor, on the other hand, are we at all inclined to …pin our faith to one particular machine. Many borers have suc… …ceeded well elsewhere, and many will probably be found well …adapted to the county, though hitherto only one is a proved success. …It is to be hoped that ere long the trials with the Beaumont borer …at Carn Brea will be brought to a practical issue. They have been …sadly delayed. When we wrote that the desire for information was …progressing we referred to the fact that the managers of some of our …leading mines which have not yet adopted mechanical boring, or …announced their intention of doing so, are now making enquiries …into the subject with a desire of ascertaining all that is to be known …concerning it, and with a special view to the wants and conditions …of the mines under their immediate control. By all means let the …enquiry be a thorough one. There has been from time to time a …little misapprehension concerning the actual character of the ex… …penditure which is required, because attention has been too closely …directed to the cost of the boring apparatus simply, which is in …comparison a mere trifle. Any fair estimate of the cost of mechani… …cal boring must include not merely the borer, and the air-compressor, …and the communicating pipes, but the boiler and engine for driving …the apparatus, or such part thereof as is required for the purpose. …This in some calculations we have seen has certainly been left out of …sight; on the other hand, it is only fair to the principle that the …subsidiary advantages of machine over hand labour in speed, venti… …lation, &c., should be taken into full account. And when all is said …and done, we have no doubt what the final result will be. It is …quite possible, however, that before machine boring becomes general …the first cost may be enhanced somewhat by a change in the material …of which the boring-machines are composed. They must be strong, …and they need to be light. Machines that have done well elsewhere …have knocked themselves to pieces against the hard granites and …harder elvans of this county because they were not strong enough; …and if they are not light, so as to be readily removed from the end …or bottom so as to admit of blasting, there is great loss of time and …consequent expense. It is quite possible that both ends may be …secured by falling back on a material, if not precisely upon gun… …metal, at least in part on some of our new alloys—the phosphor …bronze, for example.

The paper read by Capt. Teague, jun., at the meeting of the Mining …Institute, on Tuesday, on Tin Dressing, was decidedly suggestive, …and none the less valuable for the frank admission that neither tin …dressing nor tin dressers as a rule were what they ought to be, and …that, so far as the *personnel* was concerned, the truest economy was to …employ efficient men. In the course of his specially practical remarks …Captain Teague divided tin dressing under the three heads of crush… …ing, washing (not wasting, as a local paper has it, though wasting …is certainly a department that has been far too prominent), and cal… …cining. To secure efficiency with their powerful stamping machinery …there were two considerations which should have special attention …—the loading of the fly-wheels, which could scarcely be made too …strong, and to lay the bed of the stamps firmly with granite, so as …to be as unyielding as possible. The floor should be set 2½ inches …below the grate. But some had expressed their dissatisfaction at …the fact that stamps had not been superseded. He would remind …them, however, that antiquity did not necessarily imply inefficiency, …and as an evidence of this he pointed to the "scheop-wheel," which …was still highly popular, notwithstanding its having been used by …the Persians 2000 years ago. Supposing the tin had been stamped, …and had passed through the grate, the question of treatment from …this point still remained, some preferring the immediate deposit of …tin in large pits, some in long strips, and others in buddles. Capt. …Teague's sympathy was in favour of the latter method. Of the two …kinds of buddles—Borlase's and the convex—the balance of approval …was in favour of Borlase's. Upon the next step—from the buddling …to the tossing machine—there seemed to be no difference of opinion …—at any rate, as far as regarded the process of washing preparatory …to the tossing machine. It was usual for slimes to be lodged in …large pits previous to framing or budding (framing, he should say, …was the best process for slimes). He never could see the philosophy …of this. They had to stir up the deposited slime, and get it into the …same liquid condition as when it entered the pool before it could be …worked over the frames. This was not only troublesome, but it did …not often get into that perfect solution as before entering the pond. …Now, if there was no advantage to be gained by allowing it to rest …in the pit for a few hours, why not treat it direct from the floors, …so save the expense of pit erection and the manual labour in treat… …ing, cleaning, &c.? This direct method meant economy. With re… …gard to calcining, they were all agreed as to its efficacy, but he …would recommend that the tin should be allowed to cool naturally, …instead of pursuing the popular system of throwing cold water on …it. In conclusion, he submitted a suggestion for the treatment of …"roughs," the tin in which existed in dredge grains, and could not …be profitably dealt with until it was bruised, but from the im… …mensity of its quantity it would scarcely pay to treat as a whole. …It occurred to him that the bulk of this could be reduced by means …of the jigger, which should communicate with the stamps.

The discussion embraced, as might have been anticipated, many …points of interest. Dr. Le Neve Foster (the chairman) suggested …that, instead of the stuff being taken direct from the stamps to the …buddles, he should very much like to see some other machinery, …such as percussion buddles, tried. He thought they should get as …large a quantity of whits in one operation as they could, instead of …turning over the tin twice or three times, for by getting the whits …at once they would save a considerable sum, and he believed that …this might be done by means of the percussion buddles. While …there was a large head to the convex buddles, those who had visited …the mines in the St. Austell district were aware that the tin in Capt. …Williams's mine was treated with buddles with no heads at all, and …Mr. Williams would tell them that the buddle answered very well. …There one would be told that the buddles dressed the tin perfectly, …and yet if one went a few miles further he would be told it did not …do so well, but that they must have a large head. With regard to …the direct treatment of slimes without settling it in pits, he could …not help thinking that Capt. Teague was upon the right course. In …reply to the question asked, Captain Teague spoke in favour of pul… …verisers, and highly praised Dingey's, remarking, however, that at …Tincroft Mine pulverisers were being worked which had one re… …volving disc, instead of, as in Dingey's, four. The great point of …difference evolved in the discussion was with reference to the respec… …tive merits of the different classes of buddles, and here there was so …much variation of opinion as to suggest the desirability of a paper …being written and a discussion taken entirely upon buddles only. We …throw out the hint.

REPORT FROM DERBYSHIRE AND YORKSHIRE.

April 26.—Business remains in much the same state as in my last report as regards lead, iron, and coal. At the lead mines there does not appear to be anything like activity, and the output of ore does not materially increase. Indeed, there appears to have been a fall… …ing-off going on gradually but surely for some years past. Some of the mines that at one time produced hundreds of tons of ore an… …nually now give but little, and many do not give an average of one ton a week even from ore, whilst a small quantity only is obtained from the slag. There is, therefore, very little to induce capitalists or specu…lators to venture in lead mining property in Derbyshire, although I believe that good returns would be obtained at many places if efficient machinery was put up, but unfortunately too many men have opened out ground without capital, and were soon obliged to abandon their ventures, for at the present time the old system of hand work will not do. At the collieries matters are very dif… …ferent, for with regard to them the best and most powerful ma… …chinery and appliances have been introduced as the only economical mode of working coal. Just now trade is by no means active, the season being transitional. For house coal a moderate trade is being done with the metropolis, but complaints are general as to the low prices at which sales have to be effected, whilst the competition be… …tween the seaborne and the inland coal is as keen as ever.

In Sheffield most of the trades are still quiet, Bessemer rails are an exception, and there are some large orders now being executed, particularly for Russia. It was considered that the probability of war a short time since would lead to a great demand for material, but now that war has actually commenced there does not appear to be much doing in that direction. The mills engaged in heavy armour plates have been working steadily, but our own Govern… …ment has so far been a very good customer. Russia, no doubt, were she not actually in the field in all probability would have favoured the town with some good commissions, but now her only *forte* is fighting. In cast-steel there is not much doing, and the men are far from being fully employed. Some few orders have come to hand from our colonies for tools and cutlery, but little or nothing is being done with America. In railway springs there is a good deal of competition with some of our continental neighbours, so that prices have to be run very fine. The foundries have been going along very well, and the men well employed. In pig-iron the average make is kept up, but prices are slightly lower, and few time con… …tracts are being entered into. In South Yorkshire the collieries are working very well for the season, although the business doing with the metropolis in Silkstone and other coal is not equal to what it might be were the railway rate lower. But the Great Northern Company have stated that the rate is now as low as they can allow it to be, for it is less than the Midland, and other lines as well. As yet steam coal has not greatly improved, but there is no doubt that when the Baltic is free from ice, as it may be now any day, that such is the case but what a very good trade will be done with both Russia and Turkey in steam coal for their respective navies. A large quantity of coke is being made at several collieries from very small coal that at one time was an encumbrance on the pit hills.

REPORT FROM THE NORTH OF ENGLAND.

April 26.—A grave crisis is threatening the Durham Coal Trade. I have already noticed that the cokemen proposed to refer to arbi… …tration the reduction of 6 per cent. which the coalowners claim from their wages. But the coalowners are not disposed to concede ar… …bitration in the present case, for the reason that a reduction of less …amount than the 6 per cent. claimed might tend to unsettle the other …surfacemen, whose wages have been reduced by that amount under …the operation of the sliding scale to which they have become subject. …The coalowners all along have wished to rank the cokemen along …with other underground labour. But the cokemen themseves are …not disposed to be classed along with other labour of any kind, and …have so far succeeded in their claim to separate recognition that on …two previous occasions they have been arbitrated for without re… …spect to other surface labour. This distinction, however, is ex… …tremely inconvenient for the owners, who think that all surface la… …bour should go together, and seeing that other surface labour has …submitted to a 6 per cent. reduction the coalowners are disposed to …risk a strike of the cokemen rather than sanction any step that might …involve discontent on the part of other surface labour, and a pro… …bable consequent abandment of the sliding scale. A meeting of the …owners and the cokemens' delegates is to be held at Newcastle to… …morrow afternoon, and the matter will then and there in all proba… …bility be determined.

The cokemen are of themselves a small body, not numbering more …than 4000 or 5000, while the miners and other surface labour repre… …sent some 50,000; but their functions are so important that if they …were to strike there would be an almost immediate stoppage of the …great pig-iron trade of Cleveland, while the hematite iron trade of …the West Coast, and the steel trade of Sheffield, would be most seri… …ously inconvenienced. The quantity of coke now annually made in …the North of England is from 4,000,000 to 5,000,000 tons per annum, …representing nearly double that quantity of raw coal, and the coke… …men of South Durham furnish not only Cleveland, but Sheffield, …Lincolnshire, Cumberland, and North-West Lancashire, with most …of the fuel they use for metallurgical purposes.

The state of the Iron Trade of the Cleveland district is such that …many of the employers would not at all object to blow out their …furnaces for a time, but such a step would necessarily be attended …with grave consequences to the workmen, and for their sakes, as …well as in their own interest, the ironmasters are anxious to keep …things together. There has been a very slight revival of prices this …week, but the expectations and prospects as to the future do not …point to any substantial improvement. No. 1 has been done this …week at 45*s.* 6*d.*; No. 3, at 42*s.* 6*d.*; and No. 4 forge, at 40*s.* cash, …less 2½ per cent. discount. The returns of the Cleveland Ironmasters' …Association for the month of April will be out in a few days, and if …they are as unfavourable as the returns for the preceding month—…and I regret to be unable to hold out any better prospect—there is …every likelihood that a number of furnaces will be discontinued for …a time. The total number of furnaces now blowing in the district …is 111, producing about 186,000 tons of pig-iron per month.

The Cleveland Mineowners' Association have appointed Mr. David …Dale, of Darlington, and not Mr. I. L. Bell, M.P., as was expected, …to act as arbitrator on their behalf in the forthcoming arbitration. …The case of the owners will be given into the hands of the men on …Monday next. The men will have fourteen clear days to prepare …their reply, and three days thereafter the Arbitration Court will …open at Saltburn-by-the-Sea.

From a private but very reliable source I am informed that the …firm of Bell Brothers, of the Clarence Works, Middlesborough, are …about to introduce into their Whitecliff Mines, in Cleveland, a new …drilling machine which will largely supersede manual labour. This …drill is the invention of a well-known mining engineer in the Cleve… …land district, and so far as it has already been tried it has yielded

highly satisfactory results. Drilling is the most arduous, and at the same time the most expensive, work connected with the getting of ironstone, and it would be a great boon to the trade if this or some other machine could be substituted for hand labour.

No change can be reported in respect of finished iron. The works in Cleveland are generally employed in a very hand-to-mouth fashion, and most of the principal rail mills remain inoperative. Prices are not changed.

I regret to be in a position to state that Mr. John Jones, the secretary of the North of England Iron Trade, of the Iron and Steel Institute, and of the British Iron Trade Association, is ill beyond all hope of recovery, and his last hour cannot be far off. Mr. Jones has been in failing health for some time, his complaint being diabetes.

Mr. Thomas Whitwell, the President of the Cleveland Institute of Engineers, has delivered a very interesting address to the members of that society "On American Practice in Engineering." Mr. Whitwell was out in the United States with Mr. I. L. Bell, M.P., and made a thorough survey of all the works available in the country. His conclusion is that the productive duties in America have built up a large home industry, and he anticipates that England will have as much as she can do to hold her own in the face of the talent and capabilities employed in the industrial development of that country.

The mineral traffic receipts of the North-Eastern Railway Company show for last week an increase of more than 6000*l.* on the receipts for the same week in 1876. This is a larger increase than has been shown for a good many weeks past. It has recently been rumoured that the North-Eastern Railway directors were considering the propriety of reducing the rates charged for mineral traffic, but I understand that this statement is without foundation. The North-Eastern directors have definitely concluded to take no further steps in the meantime towards an abatement of mineral rates. Such a decision has naturally created much dissatisfaction among the freighters, who feel that as the railway company increased rates when trade was good they ought not to hesitate about reducing rates when trade is bad. The directors, however, have a monopoly throughout the North-Eastern district, and their will is law.

REPORT FROM NORTH AND SOUTH STAFFORDSHIRE.

April 26.—In no respect have the prospects improved in the past week. Merchants will not give out orders for finished iron, and local consumers will buy only sparingly. This is producing its effect upon the pig branch, in which less is being done than at the corresponding period in the past decade. Pigs bought elsewhere continue to be delivered, although they are needed in only few instances; simultaneously stocks are increasing at the local furnaces. Prices are without conspicuous change, but this is so mostly because there is no business to be done. Sectional arrangements are being made at certain blast-furnaces, and likewise at a few mills and forges, whereby working charges are being somewhat reduced, but there is not yet any general movement to lower wages. The Coal Trade is in a depressed condition, and in the Bilston district the water is steadily rising. This has led during the week to the stopping by Messrs. Samuel Groucutt and Sons of two of their pits, whereby 100 hands have been thrown out of employment. The blast-furnacemen in Messrs. Groucutt's employ have begun working this week at a drop of 10 per cent.

The meeting of the committee of the Coalmasters Association to receive a deputation of colliers, and to which I referred last week, came off on Friday at Dudley. Mr. E. Fisher-Smith, the Chairman of the Association, presided. The object of the meeting was to confer as to what was to be done at the termination of the Birmingham Agreement, and to further the preparation of a scheme to take its place. After considerable discussion the Chairman said the masters would entertain and consider the arguments that had been adduced, but no decision could be given that day. A delegate asked whether Messrs. Groucutt suggested a change by extra hours. Mr. D. Groucutt said their collieries were nearly drowned out, and he had suggested that the pits could only be kept on by the men working more hours per day.

No more disposition is manifested now to buy shares in local coal mining and iron making concerns than has existed for some time past—indeed, there is rather less: 2½ discount will secure the 20*l.* (6*l.* paid) shares of the Cannock and Huntington Colliery Company, and 3 discount those of the Cannock and Wimblebury Colliery Company. The 20*l.* (12*l.* paid) shares of the Hamstead Colliery are offered at 2½ dis., and the 20*l.* (15*l.* paid) shares of the Pelsall Coal and Iron Company at 11 dis. Buyers are willing to give 20*l.* for the 10*l.* shares of the Sandwell Park Colliery Company.

The voluntary winding up of the Stour Valley Coal and Iron Company has been confirmed by the Master of the Rolls. Mr. Alfred Roberts, Birmingham, Mr. George Swallow, Manchester, and Mr. W. N. Fisher, Birmingham, public accountant, have been appointed liquidators. Mr. Fisher, as representing creditors, has received power to apply to the Court as to unpaid calls if necessary. The decision yesterday of the Vice-Chancellor sent up the John Bagnall shares 12s. 6d., the same afternoon in Birmingham, where there were sales at 3*l.* 12s. 6d.

In North Staffordshire orders for finished iron come in as slowly as ever. No improvement has resulted from the quarterly meeting, and a number of mills are laid off. Plates are the only description that is being turned out with any vigour. Sales of pig-iron are few. The supply is in excess of the demand, and prices are not strong. As a result the ironstone pits are doing but little—less than for several years past. Forge and furnace coal is in very limited enquiry, and prices are almost unremunerative.

The great difference in the prices at the present time as compared with those prevailing in 1872, when trade was so good, is very succinctly set forth by Messrs. T. W. and J. Walker in their quarterly report, just issued. In it they say:—"The iron trade during the last quarter has gone from bad to worse, the prospects for the present quarter are most discouraging. The production continues slowly to decrease; many finished ironworks are being virtually closed, and failures of small ironmasters are becoming numerous. More blast furnaces will have to be blown out. Prices as compared with those ruling on last Quarter-day are not quotably less, if we except hoops and sheets, which are 5s., and galvanised roofing sheets 10s. to 15s. per ton lower." Messrs. Walker give a comparative statement of the prices now ruling and those quoted in June, 1872, and, as they say, prominently set forth the astonishing percentage of decrease in value of staple metals. The statement shows that in June, 1872, Staffordshire bars, which were quoted f.o.b. at Liverpool at 13*l.* 5s. per ton, are now 7*l.* 2s. 6d., a decrease of 46 per cent. A similar decrease relates to Welch bars, which were 12*l.* in 1872, but now only 6*l.* 10s. Staffordshire hoops have declined 48 per cent., being now 7*l.* 10s., as against 14*l.* 5s. in 1872. Ordinary sheets were then 17*l.* 15s., but now only 8*l.* 17. 6d., a decrease of 50 per cent. Tin-plates (charcoal) have also gone down 50 per cent., being 2*l.* 6s. in 1872, as against 1*l.* 3s. 6d. at the present time. Amongst the other decreased percentages are copper 35, copper sheets 32, tin 54, spelter 9, and yellow metals 27 per cent. Lead has advanced 5 per cent. on the same period. The report concludes:—"When we consider that coal is about 2s. per ton higher in price now than in June, 1872, and that workmen's wages are, after all, but slightly reduced (in comparison to the above percentage of decrease), we can understand the terrible disadvantages that manufacturers are at present labouring under, and the dwindling profits, not to speak of loss."

Vice-Chancellor Bacon has given judgment in the great suit Bagnall *v.* Carlton, Grant, and others. The action was brought by Bagnall and Co. (Limited), to recover from the defendants large sums which they had received in the shape of "promotion money" on the sale to the plaintiff company of extensive collieries and ironworks, the property of the late Mr. J. Bagnall. Mr. J. Carlton and Mr Albert Grant were the principal defendants. The Vice-Chancellor declared Mr. Grant and Mr. Carlton jointly and severally liable for the sum of 85,600*l.* and interest, Mr. Richardson liable for 10,000*l.* and interest, and the two Naylors for 500*l.* His lordship ordered that the defendants might discharge their liability by restoring the debentures which they had received in lieu of cash. Notice of appeal was given.

WALSALL WOOD COLLIERY COMPANY (Limited).—The following report has been issued to the shareholders in this company by the manager:—"At a depth of 385 yards the shaft passed through a measure of coal 6 ft. 3 in. thick, lying in 7 ft. 8 in. of ground; it was of workable quality, the upper part suited for house and the remainder for forge purposes. We supposed it at the time to be the 7-ft. coal, but now know it to be an additional measure, which at the adjoining collieries is split up into several seams, and, consequently, is not there workable at a profit. At a depth of 424 yards we passed into the 7-ft. coal; it is 7 ft. 3 in. thick, and separated from it by a 9-in. parting is another coal, 1 ft. 3 in. thick, the two being 8 ft. 6 in. thick, lying in 9 ft. 3 in. of ground: 5 yards below the 7-ft. the 4 ft. coal has also been passed through of the full average thickness, immediately above which lies the measure of ironstone known in the district as 'Gubbin,' occupying 4 ft. 6 in. of ground, and producing 12 cwts. per superficial yard; the 4 ft. is a strong coal, making little small, and will, in our opinion, command a high price in the market for steam and glass house purposes, with the ironstone above it will make a very good working. The measures dip uniformly in a north-westerly direction about 1 in 14, which is a very favourable dip for working, as it enables the underground haulage to be performed at a minimum cost. In conclusion, I may state that the above results have realised our most sanguine expectations, and there is no doubt that the other coals, including the 5-ft. brooch, yard, shallow, and deep coals will be found in regular order. The shaft is now quite free from water."

TRADE OF THE TYNE AND WEAR.

April 26.—There has been an improved demand for Steam and House Coal, and the works have been better employed during the past week,—so far the actual outbreak of war in the East has had a tendency to increase the demand for steam coal. As no stocks of this coal of moment are held, and many of the old works are dismantled, in order to erect improved screws and machines to weigh the coals under the new system, any increased demand will be very sensibly felt. A meeting of the masters and delegates from the men in Northumberland was held on Saturday in Newcastle, when a long discussion took place on the two questions—a reduction of price, and the proposed payment by the men for houses and coals. The masters made a modified proposal, and an answer to this will be given a fortnight hence. The men at the Redheigh Colliery, near Gateshead, are on strike for an advance of wages; the reason they give for this absurd step is that their earnings are 25 per cent. below the average of the county, but if that is so they ought to have appealed to the joint committee appointed by the parties, instead of resorting to the antiquated and stupid course of striking.

The late discovery of the Low Main seam, or Hutton seam, at Hutton Henry Colliery, is a most interesting event, and bears out the assertion that has been often made of late, that new fields, or extension of old fields, of coal are constantly being made. This colliery is the most south-easterly work at present in the county of Durham. Near the Tyne the seam just won is a very important one—about 6 ft. in thickness, and it is curious to notice the changes that occur in the nature and thickness of the seam as we proceed in a direct line south towards the latest discovery. At Springwell and Washington the seam is from 3 ft. 6 in. to 4 ft. 6 in. in thickness; in the Wear in the collieries of the Earl of Durham it is in fine condition, varying from 3 ft. 8 in. to 4 ft. 6 in. in thickness; at Hetton and Haswell it has also been good; at Wingate and South Hetton it is very much reduced in thickness, and it was thought that it was gradually thinning out there, but at Hutton Henry there is a most remarkable change; we give the section as one seam, it being evidently all the Hutton seam, and the next seam below this—the Harvey—ought to be found about 30 fms. below. Good coal, 3 ft. 3 in.; band, 1¾ in.; good coal, 1 ft. 8 in. (=5 ft. 0¾ in.); fireclay, &c., 6 ft. 0 in.; coal, 1 ft. 6 in.; band, 4½ in.; coal, 11 in.; band, 2½ in.; coal, 8½ in. (=9 ft. 8½ in.); making 14 ft. 9½ in. in all. This certainly shows that it is possible that the coal field extends in that direction far beyond the limits usually assigned to it. The depth to this corresponding seam at Tyne Main Colliery is about 110 fms. from the surface, and at Hutton Henry it is found at 135 fms.

In the case of the wages of the Durham colliery mechanics, Mr. Stevenson, barrister at law, Newcastle, has been appointed umpire in the arbitration arranged to take place, and Messrs. S. B. Coxon and Douglas have been appointed arbitrators for the colliery owners, and Messrs. Burnett and J. Palmer for the mechanics.

It is hoped that some reduction will at length be made in railway freights, and the directors are at present seriously considering the question whether they should not bring charges down to the level of those ruling in 1871.

The decision of the committee on the Tyne Improvement Bill is to be given on Thursday, when it is expected to be in favour of the measure. With respect to the shipment of coals on the south side of the Tyne, west of Newcastle Bridge, it is curious to note that the coals from West Durham were shipped at Dunston into keels in the earlier ages of the coal trade, and the coals were conveyed from the pits by means of horses on wooden tramways. But on the introduction of superior iron railways the coals were conveyed to shipping places nearer the mouth of the river, when they could be shipped into sea-going vessels. Now that the river has been so much improved as to enable large vessels to be taken up to Dunston, that is evidently the point where their coals can be shipped most economically, and we may add that the great depression which has occurred in the coal trade has alone prevented or delayed this scheme from being carried into effect.

BURRY PORT SMELTING COMPANY.—We last week gave some particulars respecting the position of this unfortunate concern. The statement furnished to the creditors reveals an astonishing state of affairs. The company has a confessed liability to the extent of 164,233*l.*, and its assets only reach 18,611*l.*, but the result of the liquidation may not be anything so good as even that enormous disproportion would lead deluded creditors to expect. The total debts, secured and unsecured, amount to about 305,000*l.*, and this figure is reduced by deducting "estimated" values of securities held which may or may not turn out to be worth the estimate. On the other hand, the assets consist almost entirely of furniture, fixtures, fittings, and other property, "estimated" to produce 18,100*l.* At the time of their stoppage the firm had less than 37*l.* of cash in hand, and the book debts were worth only 474*l.* How on such slender resources business could have been carried on so long must be a matter of astonishment to everybody, and it is a great pity that the present law of bankruptcy gives no power to compel a discovery of the mystery. There is something far wrong, indeed, in the system which suffers such "trading" to become possible, and then allows the bankrupt estate to be "liquidated by arrangement." Among the creditors are—the Great Laxey, 5042*l.* 10s.; Pennerley, 716*l.* 5s.; Van Mine, 3197*l.* 10s.; Roman Gravels, 1697*l.*; Ladywell, 146*l.* 5s.; Great Dyliffe, 2874*l.*; Grogwinion, 2346*l.*; Wye Valley, 910*l.* 10s.; West Tankerville, 1186*l.* 10s.; Asheton, 1368*l.* 5s.; West Assheton, 263*l.* 15s.; West Chiverton, 1375*l.*; Powell Consols, 322*l.*; Bronfloyd, 426*l.*; Bampfylde, 241*l.*; Caldbeck Fells, 150*l.*; Old Treburgett, 1532*l.* 10s.; De Broke, 295*l.* 10s. At the meeting of creditors, after some discussion it was ultimately proposed by Mr. Peter Watson and carried—"That Mr. Lavington (Van) and Mr. Wilson (Assheton) should be elected on the committee to act for the lead mines, with the understanding that they should consult with Mr. Peter Watson on matters regarding the liquidation."

*** These reports were received too late for insertion in their proper places.

ASSHETON.—*J. Craze, J. Manley, April 26:* The 50, east of Mawr shaft, on the north and south lode, is about 6 ft. wide, and continues to yield saving work, and opening out tribute ground. No particular change throughout the mine; a full report next week.

WEST ASSHETON.—*J. Craze, J. Manley, April 26:* No change to note throughout the mine. A full report shall be sent you next week.

CATHEDRAL MINE continues to open out most satisfactorily. The lode in depth and at the 42 and 54 is opened in length; the lode shows evident signs of increased productiveness. The ores are more compact, and the quartz more crystallised; the matrix of the rock (granite) more congenial, soft, and decomposed than in the upper crust of the surface. Hence there is every probability of a continuous course of yellow copper ores from one cross course to another, fully 70 to 80 fathoms apart.

THE I.X.L.—The new hoisting machinery has been put up, and is now running at this mine. Manager Chalmers has let a contract to R. H. Stoddard to sink the shaft another 200 feet. Manager Chalmers will receive proposals for hauling from 20 to 25 tons of ore per day from the I.X.L. Mine to the I.X.L. mill.—The Exchequer Mine: Paying ore is coming out of this mine at the rate of 20 or 25 tons a day. It will do better as it becomes more developed and the working force is increased. D. D. Reeves, United States Deputy Surveyor, has been retained by Manager Chalmers in the service of his company.—*Alpine Chronicle*, March 31.

THE

LANGNESS MINING COMPANY

(LIMITED).

To be registered under the Companies (Isle of Man) Act, 1868, whereby the liability of each shareholder is limited to the amount of his shares.

Capital £45,000, in 15,000 Shares of £3 each.

Deposit on application..... 10s. per share
ditto allotment ..... 20s. per share

The balance of 30s. per share will be called up if required at intervals of not less than three months, and in calls not exceeding 10s. per share; but it is probable that no call will be required after the payment of the allotment deposit.

One-half the purchase money for the property is payable in shares.

NO PROMOTION MONEY TO BE PAID.

PROVISIONAL DIRECTORS.

*THOMAS WRIGHT, Sunnyside Cottage, Douglas, Isle of Man.
*WILLIAM TODHUNTER, Derby-square, Douglas, Isle of Man.
*JOHN TAGGART, Malew-street, Castletown, Isle of Man.
*WILLIAM J. FELL, Princes-street, Douglas, Isle of Man.
*DAVID DUNCAN LEWIN, 134, Fenchurch-street, London, E.C.
*HENRY NICHOLLS, Harris-terrace, Douglas, Isle of Man.

* These gentlemen are members of the Derbyhaven Trial Company, the vendors.

BANKERS.

BANK OF MONA, Douglas, Isle of Man, and Branches; and the CITY OF GLASGOW BANK, Glasgow.

AUDITOR—To be elected by the shareholders.

SECRETARY (pro tem)—M. PARKINSON.

TEMPORARY OFFICE.

46, ATHOL STREET, DOUGLAS, ISLE OF MAN.

PROSPECTUS.

This company has been formed to purchase and work the mines, veins, and beds of metal, and metallic ores and minerals within, under, and upon a certain portion of a tract of land situate in the parish of Malew, Isle of Man, belonging to a proprietary company called "The Derbyhaven Trial Company."

The said portion of land is about a mile in extent along the course of the main or Champion lode, and is part of the sett held by Messrs. William Todhunter, Thomas Wright, and William Fell, under lease from the Crown for 21 years from 5th April, 1876. It contains besides the said main lode a strong parallel lode, and both are intersected by numerous caunter lodes or cross courses, all more or less having outcrops of rich copper ore.

The main lode has an outcrop of ore 20 in. in thickness on the surface: the No. 2 parallel lode (which underlies towards the main lode, and the latter towards it, and both are expected to form one great lode in depth) has an outcrop of ore 10 inches thick, while the outcrops of the caunter, or cross veins, vary from 1½ in. to 5 in. in thickness.

Explorations were commenced on the property about three years ago by 16 persons, who formed themselves into the "Derbyhaven Trial Company," and as valuable were the surface discoveries stated to be by the practical mining men whose advice was sought, that the vendors were strongly urged to place the property at once upon the market. They elected, however, to spend their money in exploring their property until it gave indications in depth of becoming, with larger capital and more extensive operations, one of the most promising mines ever placed before the public.

In keeping with this common desire to prove the worth of the property before bringing it before the public, a trial shaft was commenced under the advice of Mr. Warington Smyth, Government Mining Engineer, and sunk by hand labour to a depth of about 15 fms. From this a cross-cut was driven to intersect the 10-in. and 20-in. vein (as the two main parallel veins are called). In the course of this preliminary work, it became evident to the proprietors, and to the several mining agents who visited the property—for the mine had already gained a high reputation in the Island, and attracted considerable attention from mining men—that the property would, when a moderate depth was attained, be a great and productive mine of high percentage ore.

By the advice of Mr Josiah H. Hitchins, the well-known mining engineer, and discoverer of the Devon Great Consols, a trial winze was sunk on the 20 in. vein, and the proprietors had the satisfaction of finding that the lode carried ore every inch in depth, in greater or less bodies (in many places as thick as 12 inches, and valued at 3 tons per fathom if driven upon). It was hoped that the junction of the two lodes would be reached in this winze; but, unfortunately for its further progress (although it is an excellent indication of the liveliness and openness of the lode), a heavy feed of vein water was struck, and the workings in depth had to be stopped in the absence of adequate machinery for getting out the water. As will be seen, however, upon reference to the statements of the well-known mining gentlemen whose reports accompany this prospectus, the proprietors have not spent their money in vain. They have upwards of 10 tons of high-class copper ore to show, after only the merest experimental driving upon the lode.

By means of these preliminary operations the strong probability of the mine proving remunerative when fully worked has been fairly established, and with an engine-shaft down (say) 40 to 50 fms., large and valuable returns are confidently looked for.

The following assays will serve to show the rare value of the ore. The first is from an analyst attached to one of the large chemical works at Widnes, and was obtained through Mr. J. T. Allen, of that place:—

COPY OF TEST NOTE.

Widnes, April 2, 1874.

DEAR SIR,—I have had the sample of ore which you sent me analysed. If this is a fair sample, you have found a very rich vein indeed, but I am afraid it is too good to be true. It tests:—

42·4 per cent. iron | 32·0 per cent. sulphur
24·5 „ copper | 1·1 „ silicate

J. T. ALLEN, Widnes, Lancashire.

The following are from Mr. Norman Tate, of Liverpool, the well known chemical analyst:—

Analytical Laboratory and School of Technical Chemistry,
7 and 9, Hackin's Hey, Liverpool, Aug. 12, 1875.

DEAR SIR,—I have not been able to complete analysis of minerals in time to write you fully to day, but am able to tell you that both samples contain over 20 per cent. of copper. They are, in fact, samples of copper ore in which the copper exists as sulphide. The mineral appears to be a mixture of sulphides of iron and copper, with quartz. I can scarcely tell you the value now, but if you can get hold of a Swansea sale list it will tell you the present price for such copper ore. I will see if I can learn the value between now and to morrow's post. Such ore is decidedly worth attention.

A. NORMAN TATE,
Analytical and Consulting Chemist, and Chemical Engineer.

P S.—No. 1 contains 23·8 per cent. copper.
No. 2 „ 21·5 „ „

These are the results of wet assay. The dry assay would give somewhere about:—
No. 1—21·5 per cent. | No. 2—19·5 per cent.

Mr. James T. Allen. A. N. T.

A few days afterwards Mr. Norman Tate wrote as follows to Mr. Allen:—

Analytical Laboratory and School of Technical Chemistry,
7 and 9, Hackin's Hey, Liverpool, Aug. 20, 1875.

DEAR SIR,—In addition to the results I reported to you on the 12th inst., I have since determined the proportion of sulphur present in the samples you sent me:—

In No. 1 I find 33·8 per cent. of sulphur.
In No. 2 „ 31·0 „ „

The other constituents are iron and silica, with a very faint trace of arsenic, and also traces of silver. I do not know that I can add anything further. In a commercial point of view the mineral is simply a copper ore, containing on the average 20 per cent. of copper unmixed with any other metal that can add to or detract from the value of the ore as a copper ore.

A. NORMAN TATE.

Jas. T. Allen, Esq.

Inspector's Office, Douglas, Isle of Man, March 21, 1877.

SIR,—The following is the result of examination of four samples of copper ore received by me from the Derbyhaven Mining Company for analysis:—

No. 1 contains 21·3 per cent. of copper.
No. 2 „ 24·2 „ „
No. 3 „ 23·9 „ „
No. 4 „ 22·4 „ „

JOHN F. TERRY,
Government Inspector Adulteration Acts.

Mr. M. Parkinson.

The property is held under a lease from the Crown, dated June 1, 1876, for 21 years, at a very low nominal rent, and a royalty of one fourteenth for all ores of whatsoever kind, and the company have the right under the lease to work for minerals under Castletown Bay to a distance of about half a mile from low water. The importance of this concession will be seen when it is stated that the east and west veins have been traced across Castletown Bay, and it is a tradition of the neighbourhood that the Sandwich Boe and Boe Norris rocks, which are within the royalty, and are to be seen at low water spring tides, are full of ore.

Traces of ancient mining have been found on Langness, and at a place called "the Smelt House," on the road from Derbyhaven to Langness, what appear to be sandhills have been discovered to be heaps of scoriæ and refuse from old washing floors and reduction works. The dressing of the ores by the ancient miners in this place has been imperfect in character, as is shown by the large percentage of copper, lead, manganese, &c., still remaining in these heaps of refuse and scoriæ.

It is expected that the purchase of adequate machinery for developing the mine and for dressing purposes, will not absorb, with the purchase money, more than the amount paid up on application and allotment of shares. The property contains an excellent site for dressing-floors, which will be so situated as to admit, with only a moderate outlay, of the recurring tides being utilised for washing purposes.

Langness Mine is accessible by good roads communicating with Derbyhaven, Castletown, and the Railway Station at Ballasalla. It is bounded by Castletown Bay on the west, with easy access to the port of Castletown, and where the main operations are carried on is admirably adapted, and may be easily made available, for harbour purposes. At its northern end, however, it is provided with one of the best sheltered harbours in the United Kingdom—viz., Derbyhaven Harbour, into which large vessels frequently run for shelter in prevailing winds. Every facility is thus afforded for the cheap, speedy, and economic conveyance of ores and material to and from the mine.

So valuable are the discoveries made, and so promising does the property look as depth is attained, that nothing but the absolute necessity of raising capital to insure the development of the mine and the obtaining rich returns at an early date, has induced the vendors to place the property before the public.

The Memorandum of Agreement and plan of ground may be inspected, and the

of Association, with other information, obtained at the temporary office of the company, 46, Athol street, Douglas, Isle of Man.

Persons desirous of becoming shareholders are particularly requested to visit the property and see for themselves the genuineness of the investment.

The vendors transfer the mine to this company for the sum of £10,000, of which £1,000 is to be paid in shares. No promotion money is to be paid.

The contract contains a provision that the purchasers are to pay all the current expenses of the vendors in working the mine from Feb. 1, 1877.

Applications for shares may be made upon the form accompanying the prospectus, and the amount, with a deposit of 10s. per share to the company's credit, to the Bank of Messrs. Douglas, Isle of Man, or its Branches, to the City of Glasgow Bank, Glasgow, Douglas, Isle of Man, or at the temporary office of the company, 46, Athol-street, Douglas, or to M. PARKINSON, at the temporary office of the company, 46, Athol-street, Douglas, Isle of Man.

Payments of shares will be made according to priority of application.

REPORTS ON THE MINE.

Report by WALTER EDDY, Esq., and Captain WILLIAM KITTO.

Report for the Directors of the Derbyhaven Mining Company.

To the Directors of the Derbyhaven Mining Company.

GENTLEMEN,—We made a careful examination of this mineral property, both on the surface and underground, on the 7th ult., and annexed is our report thereon.

The sett is a very large one, being upwards of two miles in length by about one mile in width, and comprises within its area several powerful copper lodes.

The property is situated on the south side of the island, on the eastern part of Castletown Bay, within one mile of the Douglas and Port Erin Railway Station, with facilities at hand for shipping the ore and getting materials by sea.

The geological formation of the district is rather curious and interesting. It is composed of old red sandstone, conglomerate, mountain limestone, and clay-slate (or killas), the former being in this part a cover or cap upon the clay-slate (or killas), and the former being in this part a cover or cap upon the clay-slate (or killas), to the depth of about 10 yards in thickness, and through which run thin veins of trap rock. The copper lodes cut through this conglomerate, cropping boldly out at surface, and are not displaced or disturbed by the trap dykes, the latter running nearly parallel with them.

The principal workings have been made on what, for distinction, we will call the main lode, which is from 3 ft. to 5 ft. wide. Several trial holes were first made on the surface, in one of which a blast was put in the lode whilst we were there, and a lot displaced from 5 to 6 cwts. of good copper ore. The ore is of unusually good quality, producing from 20 to 25 per cent. of metallic copper.

A small shaft also has been sunk perpendicularly outside the lode to a depth of 10 yards, and a short cross cut put out from the bottom to intersect the lode, which is cut in the clay slate below the conglomerate. The lode was driven upon here for a few yards, and a sump put down in it to a depth of 24 yards. The stratum is a fine clay-slate, and the lode maintains its full width of from 3 feet to 5 feet, with very fine ore in it; and in our judgement it is altogether of a most promising character for proving highly productive in depth.

We consider that you are in possession of a very fine mineral property here, and that when the veins are prosecuted in depth you will have a good and profitable mine.

The sett is so large that it might with advantage be divided into two or three mines. Besides the promising nature of the present trials, we think that a large body of ore may be met with at the junction of the limestone with the clay slate, which is in close proximity to the present workings. The situation possesses great advantages for economical working, the strata and lode fairly easy to drive in, and good roadways and shipping communication near at hand. The lodes are not far separated from one another, and may be intersected with great advantage from the one now partially opened.

WALTER EDDY, Mineral Surveyor, Fron, Llangollen, N.W.
WILLIAM KITTO, Manager of the Foxdale Mines, Isle of Man.

March, 1877.

Mr. JOSIAH H. HITCHINS' REPORT.

In his report, referred to in the prospectus, Mr. Josiah H. Hitchins, the well-known mining engineer, says:—

"It is now a fortnight since I inspected this mining property; having over and over again carefully reviewed what came under my observation—in other words, have had sufficient consideration and reflection to bear on the various points of development entitled to weight in coming to as approximately correct a conclusion as may be permitted by the nature of the circumstances involved—that is to say, according to my judgement. For this I have had ample time, which I invariably claim to be allowed in such cases, being always impressed with the serious responsibility attached to offering opinions for the guidance of others. It may be relied on that I shall bring no other than the most unprejudiced and independent judgment to bear on this mining property; speaking of it only in such a way as will be sanctioned by my conscientious conviction. No lengthened statements will be required here to afford a sufficiently intelligible explanation of the state and prospects of the mine, the development of which, so far, either in depth or extent, can only be considered very limited; nor will what I have to say (suggestively) as regarding the working necessitate any other than a few remarks."

Mr. Hitchins then proceeds at length to describe the geological conditions of the mines, and to advise the Derbyhaven Company as to the best mode of proving the value of the discoveries on the surface, and concludes his very exhaustive report as follows:—

"On consideration, again and again, of all the circumstances in connection with the property, I see no reason for wishing to retract my advice as to opening out the mine deeper, in the way explained—that is to say, by sinking a trial winze below the present bottom level, which, in my opinion, is fully justified, attaching importance to the rich ore that the lode makes up to the very surface at many points, and seeing that at the present bottom level there is a lode producing good ore to commence with. What I have advised I would do myself if I had the mine, and the required money for it. Moreover, I cannot refrain from saying (taking things fairly into account) that my opinion is that the probabilities preponderate in favour of the successful issue of this mine, in proof of which I take an interest therein."

CAPTAIN LLOYD'S REPORT.

Amongst others who have visited the property for inspection purposes was Capt. Richard Lloyd, manager of the Harlech Mines, North Wales, who in reporting upon the Langness generally, and that portion of it to which some of the esrly explorations of the Derbyhaven Company were confined, says:—

"I noticed at that part of the sett where operations have been commenced five different lodes traversing the sett within a space of less than 200 yards. Four of them are north and south parallel lodes, with an underlay worth from 18 in. to 24 in. the fathom. The other is a cross-course running nearly east and west, so that it intersects the other four, and forms a junction with each of them, which is a very favourable indication, and will most likely add to the richness of the four parallel lodes. I myself picked up from the surface at a point where the cross lode forms a junction with one of the north and south parallel lodes a large stone of rich copper ore.

"Now I must pen a few more remarks respecting the four lodes running parallel with each other, north and south, commencing with the western lode, which I will call No. 1. This is a strong well-defined lode, containing spar, gossan, clay, and strong ribs of fine copper ore. No. 2 lode is within 9 fms. of No. 1, and is a fine-looking lode; but I could not examine it as well as I would have wished owing to the tide at the time. To all appearance, however, it contains similar vein stuff and matrix to the others. No. 3 is a fine looking strong lode, running within 10 fms. of No. 2 parallel. It contains similar matrix to No. 1, and very strong ribs of rich copper ore.

"No. 4, or the most easterly, is a very strong, masterly, well-defined lode, about 4 ft. wide, carrying straight smooth walls or cheeks, and containing, besides very strong ribs of pure rich copper ore of several inches wide, gossan of a light brown colour, oxide and carbonate of iron, spar, and clay, all of which are more or less impregnated with copper ore. This must be a very valuable lode indeed, and I believe it will produce an immense wealth of ore when a proper depth is attained. Taking into consideration the extent of the sett, the number and richness of the lodes, their proximity to one another, and the facilities offered for working them and shipping the ores, I have no doubt in my own mind that with a moderate capital judiciously expended the Langness Copper Mine cannot fail to be a great success.

FORM OF APPLICATION FOR SHARES.

To the Directors of the Langness Mining Company (Limited).

GENTLEMEN,—Having paid to your credit at the the sum of £ being a deposit of 10s. per share on shares of £3 each in the above company, I hereby request you to allot to me that number of shares; and I hereby agree to accept such shares, or any less number you may allot to me, according to the terms of your prospectus, and I agree to pay 20s. per share due on allotment, any excess of deposit being applied thereto. I authorise you to insert my name on the register of the members for the number of shares allotted to me.

The deposit to be returned in full should no allotment be made.

Name in full ... ...
Address ... ...
Profession (if any) ... ...
Date ... ... 187 . Signature ... ...

SAFE AND PROFITABLE INVESTMENT OF FIFTY PER CENT. PER ANNUM.

BARNARD'S PROMOTERS' COMPANY (LIMITED).

The princely fortunes hitherto realised only by the favoured few can now be enjoyed by the many. Guaranteed minimum dividend of 50 per cent. per annum upon the collateral security of valuable property, and, in addition, every £100 now invested may be confidently expected to realise £500 per annum. However questionable, remarkable, or incredible this may appear, full unexceptionably satisfactory and convincing particulars can be obtained of THOMAS JOHN BARNARD, Financier and Accountant, 80, Bishopsgate-street Within, London, E.C.

THE BIRMINGHAM WAGON COMPANY (LIMITED)

MANUFACTURE RAILWAY CARRIAGES and WAGONS of EVERY DESCRIPTION, for HIRE and SALE, by immediate or deferred payments. They have also wagons for hire capable of carrying 6, 8, and 10 tons, part of which are constructed specially for shipping purposes. Wagons in working order maintained by contract. MANUFACTURERS also of IRONWORK, WHEELS, and AXLES.

EDMUND FOWLER, Managing Director.

WAGON WORKS,—SMETHWICK, BIRMINGHAM.

THE NORTH CENTRAL WAGON COMPANY, ROTHERHAM,

HAVE ON HAND A NUMBER of 8 and 10 ton COAL and COKE WAGONS ready for immediate delivery, with side and floor doors, side and end doors, and side doors only, on easy terms, for cash. Purchase, lease, and ordinary hire.

Full particulars may be had upon application to—

JOHN BARRAS, Secretary.

CAPTAIN ABSALOM FRANCIS
MINING AGENT, ENGINEER, AND SURVEYOR
GOGINAN, ABERYSTWITH,

PURSUANT to an Order of the Chancery Division of the High Court of Justice, made in an action STODDART v. THE DUCHY GREAT CONSOLS (LIMITED), AND OTHERS, 1876, S. No. 441, the Holders of Debentures issued by the Defendant Company are REQUIRED, on or before the 17th day of May, 1877, to SEND THEIR NAMES AND ADDRESSES, and the PARTICULARS OF THEIR CLAIMS as such Debenture Holders, and the Names and Addresses of their Solicitors (if any), to WALTER WEBB, of No. 23, Queen Victoria-street, in the City of London, the Solicitor for the Plaintiff, and if so required by notice in writing from the said WALTER WEBB, are, by their Solicitors, TO COME IN and PROVE THEIR SAID CLAIMS, at the Chambers of the Vice Chancellor Sir JAMES BACON, at No. 11, New-square, Lincoln's Inn, in the county of Middlesex, on Wednesday, the 30th day of May, 1877, at Twelve of the clock at noon, being the day and time appointed by the said Judge for proceedings on the said Claims.

C. HARWOOD CLARKE, Chief Clerk.
WALTER WEBB, 23, Queen Victoria street, E.C.
(Plaintiffs' Solicitor).

TO ENGINEERS, AND OTHERS.

ROCK-BORING DRILLS, &c.

MR. FREDERICK KEENE WILL SELL, BY AUCTION, on the premises, Borough-road, Southwark, on Monday, 30th April, at Twelve for One o'clock—

SIX POWERFUL ROCK-BORING DRILLS,
By McKEAN.
ONE 3½-horse power STEAM-ENGINE and BOILER.
THREE TURNING LATHES.

Drill stands, boiler tubes, steel drills, rods and bars, forge, anvils, tools, and the general stock-in-trade of an engineer; iron safe, and a few lots of furniture.

On view Saturday prior and catalogues at Mr. KEENE'S offices, 97, Stamford-street, Blackfriars-road.

THE BIRCHGROVE GRAIGOLA STEAM COAL COLLIERIES, AND PATENT FUEL WORKS, GLAMORGANSHIRE.

One of the few Collieries possessing Fuel Works of the best description, and the most convenient and economical kind erected at a cost of £6000.

MESSRS. NORTON, TRIST, WATNEY, AND CO. WILL OFFER FOR SALE, at the Mart, London, on Friday, May 4th, at Two o'clock precisely, in One Lot, very valuable MINERAL PROPERTY, known as

THE BIRCHGROVE GRAIGOLA STEAM COAL COLLIERIES,

Situated in the Swansea Valley, in the parish of Llansamlet.

Together with the PATENT FUEL WORKS erected in 1875 under an agreement with the Patentee, dated 16th November, 1874, according to H. G. Fairburn's Patent, close to the Sisters Pit and railway siding, consisting of a DOUBLE-ACTION PRESS (Fairburn's patent), heating trough, disintegrator, pitch mill, elevator for coal, elevator for pitch, elevator for mixture, THREE STEAM ENGINES and TWO BOILERS, and enclosed in a substantial stone building.

The works are capable of turning out 200 tons of fuel in blocks of 20 lbs. each in twelve hours. There is a maximum royalty of 6d. per ton of fuel made payable to the patentee, but a royalty is liable to a reduction in certain contingencies.

The Buildings, Steam engines, and Manager's Residence, together with all the Plant, Stock, including Horses, Crops, and Implements of Draining, &c., as per Inventory, which will be produced at the sale.

The following is a copy of a report made by Dr. Percy, of the Metallurgical Laboratory, Royal School of Mines, No. 28, Jermyn-street, December 5th, 1876:—"The sample of Birchgrove fuel has been tested according to instructions with the following results per 1 lb. of the fuel—'Calorific power as determined by Thompson's Colorometer, 14·2 lbs.'"

Also the LEASE of SHIPPING WHARF, with the Stock and Plant thereon, and office, store-house, lodge, and stable, situate in the New Cut, in the town of Swansea, in the county of Glamorgan, in the midst of iron, copper, tin-plate, and patent fuel works and steel manufactories, and about five miles from the seaport town of Swansea, and directly connected therewith by the Swansea Vale Railway, branching into both the colliery yards.

Particulars may be had of Messrs. FRANK RICHARDSON and SADLER, Solicitors, 28, Golden-square, and Richmond, Surrey; WALTER WEBB, Esq., Solicitor, 23, Queen Victoria-street, E.C.; Messrs. STRICK and BELLINGHAM, Solicitors, Swansea; and of the Auctioneers, 62, Old Broad-street, London, E.C.

IN THE MATTER OF THE COMPANIES ACTS, 1862 AND 1867, AND OF THE NEW ST. AGNES MINE COMPANY (LIMITED).

TO BE SOLD, BY AUCTION, BY MESSRS. COOPER AND GOULDING, at the Auction Mart, Tokenhouse-yard, in the City of London, on Monday, the 14th day of May, 1877, at One o'clock precisely, by direction of the Liquidator, as a going concern, ALL the BENEFICIAL INTEREST of the said company of and in the several SETTS under which its mining operations have been carried on, in the parish of St. Agnes, Scorrier, Cornwall, together with the WHOLE of the MINING PLANT, MATERIALS, and EFFECTS, of which an inventory may be inspected at the offices of the Auctioneers.

Particulars at the Mart; J. G. CHILCOTT, Esq., Solicitor, Truro; the Liquidator, 35, Ethelburga House, E.C.; and the Auctioneers, 70 and 71, Bishopsgate-street Within, E.C., where an inventory of the plant can be inspected.

FOR SALE—A MOUNTAIN OF SUPERIOR FIRE-CLAY.

AN EXTENSIVE SETT, AND QUANTITY PROVED TO BE PRACTICALLY INEXHAUSTIBLE. Open quarry working, and no sinking. The clay is of exceptional quality, readily ground, of high test for silica, combined with sufficient alumina as a binding property; makes the finest white Dinas silica brick, also a brick equal to Stourbridge, proved to stand any heat, and will cool again without crumbling; also excellent cement.

Situated in North Wales, contiguous to excellent shipping port and railway station. Crown lease, 21 years; royalty, 1-12th.

OWNER WILL SELL WHOLE OR PART, or arrange with a company for part cash and shares. *Bona fides* only treated with.

Apply to "Fire-clay," care of Henry Greenwood, Advertising Agent, Liverpool.

SLATE QUARRY IN WALES.
FOR SALE, BY PRIVATE BARGAIN.

THE NORTHERN WELSH SLATE COMPANY'S QUARRY, "CHWAREL FAWR," situated near CARNARVON, in the centre of the "Bangor Slate Range," at present in full operation, producing excellent slates, and comprising ONE HUNDRED AND TWENTY-FOUR ACRES, leased from the Crown at a moderate royalty.

For particulars, apply to MOORE and BROWN, C.A., No. 166, St. Vincent-street, Glasgow.

A FIRST-CLASS SLATE QUARRY ON SALE.—with good report by one of the cleverest quarry managers in Wales. Map and tracings on application.

Apply, "No. 1," Post Office, Carnarvon.

FOR SALE, or LEASE, GALVANISED IRON and STONE SHEDS, in SOUTH DOCK, SWANSEA, alongside Wharf and Rail, and suitable for Warehousing Metals, Minerals, Esparto, and other fibres, &c.

To view, apply to Mr. D. WILLIAMS, 36, Argyle-street, Swansea. For terms, to "A. B.," Messrs. Pottle and Son, Royal Exchange Buildings, London, E.C.

APPLEBY IRONWORKS, FRODINGHAM.

FOR SALE, a PRACTICALLY NEW BRICK-MAKING PLANT, only having been used eighteen months in the erection of these works, consisting of TWO of SCHOLEFIELD'S PATENT SEMI-DRY BRICK PRESSES, complete, with gearing and 9 feet pan and rollers; also a PAIR of 3 feet RIBB ROLLERS, all in first-rate working order; with or without a first-class 25-horse power ROBEY MINING ENGINE, new eighteen months ago, and in first class condition.

Apply to the APPLEBY IRON COMPANY (Limited), Doncaster.

FOR SALE,—The STEAMER "UDEA," lately leased to the Burry Port Smelting Company. Constructed specially for Lead and Lead Ore cargoes. Carries 150 tons dead weight, besides bunkers on 10 feet. Has water-ballast.

Apply to THOMPSON, WISE, and Co., 20, St. Helen's place, London, E.C.

FOR SALE, a 18-horse power PORTABLE STEAM ENGINE, with link motion reversing gear, ready for delivery.

A 25-horse power PORTABLE.

An 18-horse power VERTICAL STEAM ENGINE, with link motion reversing gear, also gear to wind and pump.

A 9-ft. PAN MORTAR MILL, VERTICAL ENGINE, and BOILER.

Apply to—
BARROWS AND STEWART, ENGINEERS, BANBURY.

PUMPING ENGINE FOR SALE,—In excellent condition. Inverted cylinder 60 inches diameter, 9 feet stroke. Cornish valves. Cataract. Wrought iron main beam and cast-iron balance beam.

Apply, H. BRAMALL and Co., St. Helens, Lancashire.

SULPHATE OF BARYTES FOR SALE.—Fine powdered, beautifully white; also in the Rock or Crude State, free from Lime and Metallic Oxide.

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RUTHWAITE BARYTES MINING COMPANY,
Nov. 17, 1875. WHITEHAVEN.

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MR. GEO. KING PATTEN, Secretary.
Llan Gan Mining Company, 47, Ann street, Birmingham.

CAUTION.—APPLICATION having been made by PERSONS UNAUTHORISED BY US for ADVERTISEMENTS for the CHINESE SCIENTIFIC MAGAZINE, we think it right to notify that we are the SOLE AGENTS IN EUROPE appointed to RECEIVE ADVERTISEMENTS, and that TO US ALONE should such be addressed. JOHN BOURNE AND CO.
66, Mark-lane, London.

CWM MAWR MINE.

WANTED, a FEW PERSONS of CAPITAL, to ASSIST in the FURTHER WORKING of the ABOVE MINE.

The owner, E. Jenkins, Esq., having for a number of years worked it from his own private income, is so confident of the ultimate success of the undertaking that the whole of the capital will go to the development of the property.

There will be no promotion money or private fees to any person.

It is proposed to expend £1000 upon the mine previous to bringing it out for the subscription of the general public as a limited liability company.

Inspection is invited. Parties may send their confidential mining agents, if desired.

For further particulars, and all information, apply to D. LLOYD MORGAN, Auctioneer, Land and Estate Agent, Llanidloes.

P.S.—Your attention is respectfully called to the annexed report.

Cwm Mawr Mine.—Having complied with your instructions to visit and examine this mining property I have now the pleasure of handing you the following report of its situation, appearances, character of the veins and accompanying strata, together with my opinion and views for the further and more extensive development of the veins running through it. Cwm Mawr is situated nearly east from the old and valuable Gorn Mine; about six miles south-east from the Van, Van Consols, and other mines in that range; two and a-half miles south from railway station, and two miles from the market town of Llanidloes.

The grant is extensive, and comprises an area of 110 acres. Several veins have been found on this property, and on one of them (which is 10 ft. wide, and is a fine, strong, and healthy-looking lode, bearing 5° north of west and south of east, and composed of lead and blende ores, barytes, and other congenial matrix) an engine-shaft has been sunk, and levels extended east and west from it, from which operations lead ores were raised and sold; and there is now some clean marketable lead ore to be seen on the dressing-floors. I must here draw your attention to the means adopted for pumping and drawing from engine-shaft. A good water-wheel has been erected, with pumps, rods, and appendages attached; also a good drawing machine has been fixed, together with shaft pulleys, chains, and all other necessary appliances, all of which are now available, and with trifling cost could be put into first-class order for the further development of this important part of the mine, and I strongly advise this course being adopted: 25 fms. south-west from the engine-shaft, and further up the dingle, a level has been commenced and driven 240 yards into the hill, with a view to intersect the different lodes or veins. One vein or lode has been cut at the mouth of the level, on which no trial has been made: 18 fms. from this vein the level intersected a vein, which is 9 ft. wide, underlaying south, and composed of a nice flookan, with blende and lead ores and barytes; but, strange to say, that with such nice appearances presenting themselves here no trial whatever has been made upon it. A considerable distance from mouth of adit level a junction of three veins or lodes occurs, which veins are of the same character as the last named, and but very little trial has been made upon them, although they are strongly mineralised, and the stratum which runs at right angles to the veins is of the most congenial character for lead ores.

In conclusion I cannot too strongly advise the wheel, &c., being put in order, and the sinking of engine-shaft resumed, as well as the drivages east and west, as I am firmly of opinion that a good and profitable mine will be met with here. I would also equally as strongly recommend trials being made on the veins seen in deep adit cross cut, as it is highly probable that in such strong and congenial strata some, if not the whole, of these veins will prove to be valuable.

HENRY FRANCIS.

P.S.—It was with much pleasure I observed a trial being made by Mr. Lefeaux on property adjoining Cwm Mawr and on Cwm Mawr vein. I consider the stuff broken from this vein to be most promising, and must in every respect be most encouraging to Mr. Lefeaux.—H. F.

RIO TINTO COMPANY (LIMITED).

Notice is hereby given, that the FOURTH ORDINARY GENERAL MEETING of the shareholders will be HELD at the City Terminus Hotel, Cannon-street, E.C., on THURSDAY, the 3rd day of May, 1877, at Two o'clock precisely, for the purpose of receiving the directors' report and statement of accounts.

Holders of share warrants to bearer will receive a ticket of admission on depositing their warrants at the company's offices in London, not later than Twelve noon on the day of the meeting, or at the Deutsche National Bank in Bremen, two days previously.

The retiring auditors are Messrs. Turquand, Youngs, and Co., who, being eligible for re election, offer themselves accordingly.

By order of the Board, R. J. FENNESSY, Secretary.
Offices of the Company, 2, Copthall Buildings, London, E.C., 26th April, 1877.

EBERHARDT AND AURORA MINING COMPANY (LIMITED).

Notice is hereby given, that the SEVENTH ANNUAL GENERAL MEETING of the shareholders of the Eberhardt and Aurora Mining Company (Limited) will be HELD at the City Terminus Hotel, Cannon-street, London, on THURSDAY, the 17th day of May, 1877, at Two o'clock in the afternoon, for the consideration of the accounts and balance-sheet of the company up to the 31st day of December last, the election of retiring directors and auditors, and the transaction of the ordinary business of the company.

The register of transfers will be closed on the 10th prox., and will continue closed until the 18th of May, both days inclusive.

By order, ALFRED CRITCHETT, Secretary.
Company's offices, No. 15, Angel court, E.C., April 26, 1877.

SOUTH AURORA CONSOLIDATED MINING COMPANY (LIMITED).

Notice is hereby given, that the ADJOURNED ORDINARY GENERAL MEETING of the proprietors of the South Aurora Consolidated Mining Company (Limited) will be HELD at the City Terminus Hotel, Cannon-street, in the City of London, on MONDAY, the 7th day of May next, at Two o'clock in the afternoon, for the election of directors in the place of those retiring in rotation, the election of auditor, and for the transaction of the other general business of the company. By order of the Board. CHARLES CADOGAN, Secretary.
17, Abchurch-lane, E.C., London, 27th April, 1877.

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ONE 20-horse power double cylinder PORTABLE ENGINE.
Will be sold cheap, and are in first-class order.
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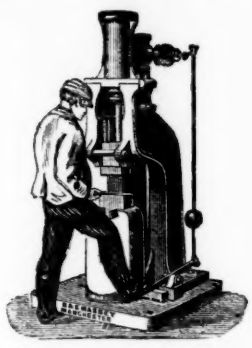
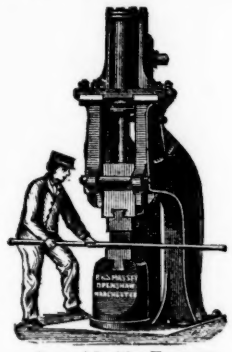


Small Hammer with Foot Motion.



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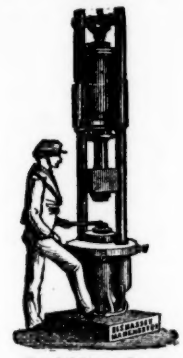

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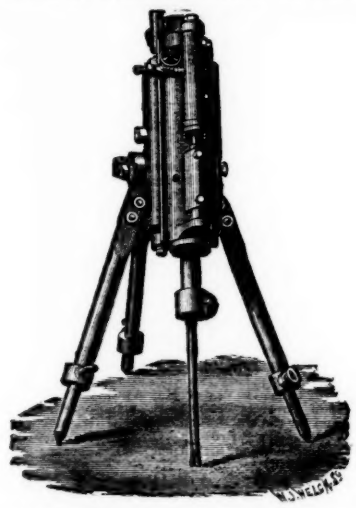

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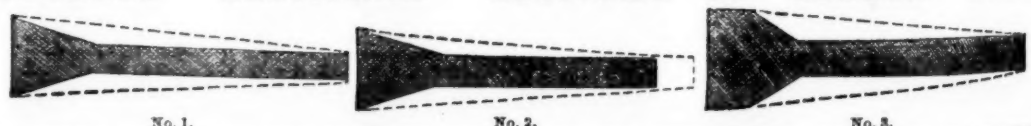

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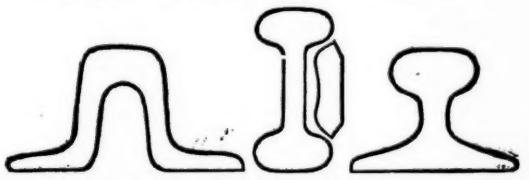

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This wheel (which is now largely in use in England, Scotland, and Ireland) is the only one yet invented which gives proportionate power from both large and small quantities of water. It can be made for using a large winter supply, and yet work with equal efficiency through all variations of quantity down to a fifth, or even less if required. It is easily coupled to a steam-engine, and, in this way always assists it by whatever amount of power the water is capable of giving, and, therefore, saves so much fuel.

This Turbine is applicable to all heights of fall. It works immersed in the tail-water, so that no part of the fall is lost, and the motion of the wheel is not affected by floods or back-water.

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THE MINING SHARE LIST.

BRITISH DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
1500	Alderley Edge, c, Cheshire*	10 0 0	—		12 11 8	0 5 0	Jan. 1876
15000	Balmynheer, t, Wendron (4000 to is.)	1 0 0	—		0 2 0	0 2 0	Nov. 1875
30000	Bampfylde, c, i, mn., Devon*	1 0 0	1⅝	1⅜ 1⅝	0 2 0	0 2 0	June 1873
200	Botallack, t, c, St. Just§	119 5 0	30	20 25	619 15 0	5 0 0	Aug. 1872
4000	Brookwood, c, Buckfastleigh	1 16 0	2½	1¾ 2	3 16 0	0 2 0	Nov. 1875
2000	Bryn Alyn,* l, Denbigh. (10l. sh.)	8 0 0	8½	7 7½	0 7 0	0 7 0	Jan. 1877
5548	Cargoll, s-l, Newlyn§	6 6 0	4½	3½ 4	4 16 3	0 12 6	Oct. 1872
6400	Cashwell, l, Cumberland*	2 10 0	2½	2 2¼	1 9 6	0 2 0	Aug. 1876
1000	Carn Brea, c, t, Illogan†§	16 0 0	34	33 35	308 0 0	1 0 0	Feb. 1874
2450	Cook's Kitchen, t, Illogan†§	23 9 9	3½	2 2½	11 17 0	0 7 6	Jan. 1873
10240	Devon Gt. Consols, c, Tavistock†*	1 0 0	4⅛	4 4¼	116 10 0	0 12 0	May 1872
4296	Dolcoath, c, t, Camborne	10 14 10	33	32 34	111 6 3	0 5 0	April 1877
5000	East Black Craig,* l., Scotland	5 0 0	6¼	4¾ 5	0 10 0	0 10 0	Feb. 1877
6144	East Caradon, c, St. Cleer†	2 14 6	1¼	¾ 1	14 19 0	0 2 0	Oct. 1872
300	East Darren, l, Cardiganshire	32 0 0	—		235 10 0	1 0 0	Aug. 1876
6400	East Pool, t, c, Illogan	0 9 9	11	9½ 10½	15 0 3	0 2 0	Mar. 1877
2800	Foxdale, l, Isle of Man*†	25 0 0	—		82 5 0	0 10 0	Feb. 1876
40000	Glasgow Cara., c* [30,000 £1 p., 10,000 15s. p.]		1¼	1 1⅛	0 12 10	0 0 6	Mar. 1877
15000	Great Dyliffe,* l, Montgomeryshire	4 0 0	4		0 2 6	0 2 6	Apr. 1876
15000	Great Laxey, l, Isle of Man*	4 0 0	21	20 21	21 13 0	0 10 0	Apr. 1877
615	Great Retallack, l, bl, Perranzabuloe	5 18 6	1½		0 1 6	0 1 6	May 1876
25000	Great West Van, l, Cardigan,* pref.	2 0 0	2⅛	2 2⅛	0 2 0	0 1 0	Aug. 1874
6400	Green Hurth, l, Durham*	0 6 0	2¾		1 12 0	0 4 0	Oct. 1874
20000	Grogwinion, l, Cardigan*	2 0 0	4	3 4	0 12 0	0 4 0	Feb. 1877
9830	Gunnislake (Clitters), t, c	5 5 0	2¾	2½ 2¾	0 13 9	0 1 0	Oct. 1876
1024	Herodsfoot, l, near Liskeard†	8 10 0	4	3 4	62 5 0	0 15 0	Oct. 1872
18000	Hingston Down, c, Calstock*†	1 0 0	¾	½ ¾	0 1 0	0 1 0	Nov. 1875
60000	Holmbush, a, c, s-l, Callington*	1 0 0	1¾	¾ 1	0 1 6	0 0 6	April 1877
25000	Killaloe, sl, Tipperary	1 0 0	—		0 3 11½	0 0 6	Mar. 1873
20000	Leadhills,* l, Lanarkshire	6 0 0	6½	6 6½	0 6 0	0 6 0	April 1877
400	Lisburne, l, Cardiganshire	18 15 0	70	70 80	580 10 0	1 0 0	Mar. 1877
14000	Llanidloes,* l, Montgomery	3 0 0	3	2 3	0 9 0	0 4 6	Nov. 1876
5120	Lovell, t, Wendron	0 16 0	—		0 17 6	0 1 6	Jan. 1874
9000	Marke Valley, c, Linkinhorne	5 0 6	1	¾ 1	7 15 0	0 2 0	Jan. 1876
11000	Melindur Valley, l, Cardigan*	3 0 0	1½		0 7 2	0 3 7	Jan. 1875
9000	Minera Mining Co., l, Wrexham*	5 0 0	—		67 0 2	0 4 0	May 1877
20000	Mining Co. of Ireland, cl, c, l*	7 0 0	5½		23 11 6	0 3 6	Jan. 1876
512	North Busy, c, Chacewater	3 9 6	8½	8 8½	0 10 0	0 10 0	Dec. 1875
10289	North Hendre, l, Wales	2 10 0	—		1 7 6	0 2 6	Dec. 1876
2000	North Levant, t, c, St. Just§	12 2 0	—		4 13 0	0 12 0	Sept. 1873
27855	Old Treburgett,* s-l, ordinary shares	1 0 0	—		0 0 9	0 0 9	Feb. 1874
9258	Old Treburgett,* s-l (10 per ct. pref.)	0 10 0	⅜	⅛ ⅜	0 1 4½	0 0 6	July 1874
5000	Penhalls, t, St. Agnes	3 0 0	2¾	2½ 2¾	3 13 6	0 2 0	July 1875
6000	Pennant, l, bar, North Wales*	5 0 0	6	5 6	0 5 0	0 5 0	Mar. 1877
45793	Penstruthal,* t, c, Gwennap	2 0 0	⅝	⅜ ⅝	0 2 8	0 0 8	Nov. 1875
12000	Phœnix, & W. Phœnix, t, c, Link.§	3 4 9	4¼	4 4¼	2 9 6	0 4 0	Nov. 1872
18000	Prince Patrick,* s-l, Holywell	1 0 0	2¼	1¾ 2¼	0 14 0	0 1 3	Jan. 1876
511	Providence, t, Lelant†§	21 6 7	—		104 12 6	0 10 0	Sept. 1872
12000	Roman Gravels, l, Salop*	7 10 0	13	12 13	7 1 6	0 8 6	Mar. 1877
512	South Caradon, c, St. Cleer	1 5 0	130	120 130	736 10 0	2 10 0	April 1877
6123	South Condurrow, t, c, Camborne‡	6 5 6	7½	6¾ 7¼	2 6 0	0 4 0	Jan. 1877
12000	St. Harmon,* l, Montgom.	3 0 0	3¼	3 3½	0 3 0	0 3 0	Jan. 1877
10000	So. Pr. Patrick,* s-l. (8000 sh. issued)	1 0 0	—		0 7 0	0 1 0	Oct. 1875
12000	Tankerville, l, Salop*	6 0 0	8¾	8 8½	4 17 0	0 5 0	Dec. 1876
6000	Tincroft, c, t, Pool, Illogan†	9 0 0	18	16 17	50 3 6	0 5 0	Mar. 1877
15000	Van, l, Llanidloes*	4 5 0	37	31 33	2 15 6	0 16 0	April 1877
3900	W. Chiverton, l, Perranzabuloe†	12 10 0	17	16 17	55 0 0	0 10 0	Jan. 1877
1783	West Poldice, St. Day	10 0 0	13	11 13	1 19 0	0 4 0	July 1876
512	West Tolgus, c, Redruth	95 10 0	61	60 62	19 15 0	1 0 0	April 1877
2048	West Wheal Frances, t, Illogan	27 13 9	4½	3½ 4	3 12 6	0 5 0	Oct. 1872
12000	West Wye Valley,* l, Montgomery	3 0 0	3	2 3	0 6 0	0 3 0	Nov. 1876
512	Wheal Basset, c, Illogan†§	19 2 6	6	4 6	638 10 0	1 10 0	Aug. 1872
1024	Wheal Eliza Consols t, St. Austell	20 0 0	—		10 0 0	4 0 0	Feb. 1877
2048	Wheal Jane, t, Kea	2 13 10	1¾	1½ 1¾	8 5 0	0 5 0	July 1875
4295	Wheal Kitty, t, St. Agnes	5 4 6	2½	2 2½	11 19 6	0 2 6	Dec. 1874
25000	Wh. Newton, a, c, s, t, Harrowbarrow*	1 0 0	3	3	0 0 6	0 0 6	April 1877
80	Wheal Owles, t, St. Just§	86 5 0	140	130 140	522 10 0	4 0 0	Aug. 1872
6000	Wheal Prussia, t, Redruth	2 0 0	4¾	4½ 4¾	0 3 0	0 2 0	Dec. 1875
25000	Wicklow c, sul, i, Wicklow	2 10 0	2	1⅞ 2	52 9 0	0 2 6	Mar. 1872
10000	Wye Valley, l, Montgomery*	3 0 0	4	3 4	0 10 6	0 4 6	Oct. 1876

FOREIGN DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr.	Total divs.	Per sh.	Last pd.
35500	Alamillos, l, Spain*†	2 0 0	1¾	1½ 1¾	1 17 3	0 1 0	Mar. 1877
30000	Almada and Tirito Consol., s*†	1 0 0	⅜	¼ ⅜	0 6 3	0 1 0	May 1876
20000	Australian, c, South Australia†	7 7 6	2¼	1¾ 2¼	0 18 0	0 2 6	Aug. 1876
10000	Battle Mountain,* c, (6240 part pd.)	5 0 0	—		0 10 0	0 10 0	Nov. 1872
15000	Bird's-eye Creek, g, California*	4 0 0	⅞	¾ ⅞	0 14 0	0 2 6	June 1874
12320	Burra Burra,* c, So. Australia	5 0 0	—		70 0 0	0 10 0	Oct. 1872
20000	Cape Copper Mining,*† So. Africa	7 0 0	41	39 41	27 15 0	1 0 0	Mar. 1877
40000	Cedar Creek, g, California*	5 0 0	¾	½ ¾	0 5 0	0 2 6	June 1873
15000	Chicago, s, Utah*	10 0 0	4½	3¼ 4¼	2 8 0	0 4 0	Nov. 1876
65000	Colorado United, s-l, Colorado*†	5 0 0	1¾	1½ 1¾	0 13 6	0 4 0	Jan. 1875
10000	Copiapo, c, Chili* (£20 shares)	16 15 0	—		7 8 5	0 2 6	Jan. 1876
100000	Don Pedro North del Rey*†	0 16 0	¼	⅜ ½	2 5 9	0 2 0	Mar. 1872
23500	Eberhardt and Aurora, s, Nevada*†	10 0 0	8¼	7¾ 8¼	1 8 0	0 3 0	Dec. 1876
50000	Emma,* g, s, Utah	20 0 0	⅜	⅜ ⅝	3 12 0	0 6 0	Dec. 1872
70000	English and Australian, c† S. Aust.	2 10 0	1½	1¼ 1½	2 15 9	0 1 0	Mar. 1877
80000	Flagstaff, s, Utah*	10 0 0	2½	2 2½	4 2 0	0 5 0	July 1873
25000	Fortuna, l, Spain*†	2 0 0	6½	6 6½	6 9 2	0 6 8	Mar. 1877
55000	Frontino & Bolivia, g, New Gran.*†	2 0 0	1¾	1½ 1¾	0 1 0	0 1 0	June 1876
30000	Gold Run, hyd.	1 0 0	—		0 2 4	0 0 4	Oct. 1872
68000	Kapunda Mining Co. Australia†	1 3 0	—		0 2 4	0 0 6	June 1873
20000	Last Chance, s,* Utah	5 0 0	¾	¾ ⅞	0 14 0	0 2 0	July 1873
15000	Linares, l, Spain*†	3 0 0	6	5½ 6	16 17 2	0 9 0	Mar. 1877
65000	London and California, g*†	2 0 0	¾	½ ¾	0 1 0	0 1 0	July 1875
7837	Lusitanian, Portugal*† (£5 shares)	3 10 0	—		1 11 6	0 1 6	Mar. 1873
5000	Mammoth Copperopolis of Utah, c, s	10 0 0	—		0 5 0	0 5 0	Dec. 1872
5000	Mountain Chief, s, Utah*	10 0 0	—		0 4 0	0 4 0	Jan. 1873
18000	Prussian Mining & Ironworks, cl, i.	30 0 0	—		6 0 0	3 0 0	July 1873
10000	Pontgibaud, s-l, France†	20 0 0	27	25 27	23 1 1	1 11 1	Nov. 1876
100000	Port Phillip, g, Clunes*†	1 0 0	½	⅜ ⅝	1 8 0	0 1 0	Jan. 1872
54000	Richmond Consols, s, Nevada*†	5 0 0	6	6 6½	3 9 0	0 7 6	Oct. 1876
40000	Santa Barbara,* g, Brazil	0 10 0	2¼	1¾ 2¼	0 3 9	0 1 3	May 1877
120000	Scottish Australian Mining Co.*†	1 0 0	2¼	1¾ 2	17½ per cent.		Nov. 1876
86000	Scottish Austral. Mining Co., New	0 5 0	⅝	⅜ ⅝	17½ per cent.		Nov. 1876
112500	Sierra Buttes, g, California*†	2 0 0	2	1¼ 1¾	1 16 0	0 2 0	Oct. 1876
60000	South Aurora, s, Nevada*	5 0 0	⅜	¾	0 14 2	0 2 0	Nov. 1873
£253000	St. John del Rey*† (£5 stock and multiples dealt in)			270 300	½ year ... 20 p. ct. for Dec. 1876		
20000	Tolima, g, s* So. America	5 0 0	3¼	3 3¼	0 11 6	0 6 6	May 1874
25000	Victoria (London)*, g, Australia	1 0 0	1¾	1 1¼	0 11 10½	0 0 10	Aug. 1876
18000	Western Andes, s,* New Granada	5 0 0	—		12 per cent. per an.		July 1876
21000	W. Prussian (5500 pref. sh. 10l. paid)	10 0 0	11¼	10¾ 11¼	1 4 0	0 8 0	April 1877

NON-DIVIDEND FOREIGN MINES.

Shares.	Mines.	Paid.	Last Pr.	Clos. Pr.	Last Call.
20000	Anglo-Australian, g, Victoria*	2 10 0	—		Fully pd.
5000	Anguilla Phosphate, West Indies (4000 issued)	10 0 0	—		Fully pd.
12000	Argentine, g, Argentine Republic	5 0 0	4½	3¼ 4¼	Fully pd.
10000	Australian Central, g* (also 6000 deferred shares)	1 0 0	—		Fully pd.
3000	Bellavista, s, Peru* (£10 shares)	10 0 0	—		Fully pd.
30000	Blue Tent, hyd., California	5 0 0	3¼	3 3¼	Fully pd.
35000	Cesena Sulphur Company, Romanga, Italy*	10 0 0	—		Fully pd.
50152	Chontales, g, s, Nicaragua*†	2 0 0	⅜	¼ ⅜	Fully pd.
16000	Condes of Chili, s-l	5 0 0	4¾	3¾ 4¼	Fully pd.
35000	Excelsior Hydraulic Gold Washing Co., California*	6 0 0	—		Dec. 1871
100000	Exchequer, g, s, California*†	1 0 0	1¾	1¼ 1½	Fully pd.
40000	Holcombe Valley, g,* California	1 0 0	—		July 1873
6000	Hornachos,* s-l, (£10 shares) Spain	10 0 0	13¾	13¼ 13¾	Jan. 1874
20000	Imperial Brazilian Collieries, Brazil*	5 0 0	—		Fully pd.
100000	I. X. L., g, s, California*	1 0 0	1	⅛ ¾	Fully pd.
50000	Javali, g, Nicaragua*	2 0 0	½	½	Fully pd.
3500	La Manche, l, Newfoundland	10 0 0	—		Fully pd.
12000	Lanestosa,* l, z, Viscaya, Spain (£2 shares)	1 15 0	—		Mar. 1876
75000	Malabar, g, Colombia* (67165 issued)	1 0 0	⅞	⅝ ⅞	Fully pd.
40000	Malpaso, g, Colombia* (7400 pref. shares, fully paid)	1 0 0	¾	⅝ ¾	Fully pd.
12000	Menzenberg, c, Honnef, Germany*	5 5 0	—		Fully pd.
4588	New Bensberg, i, l, Germany	5 0 0	par		Nov. 1876
66000	New Quebrada, c, Venezuela*	5 0 0	4⅜	3½ 4	Fully pd.
20000	New Zealand Kapanga, g, Coromandel*	5 0 0	2¾	1¼ 2¼	Fully pd.
3000	Oregon,* g, Oregon, U.S. (preference shares)	4 0 0	4¼	4 4¼	Sept. 1875
80000	Panulcillo, c, Chili*† (£80000 debentures)	4 0 0	1¼	1 1⅛	Fully pd.
80000	Pestarena United, g, Italy*†	3 0 0	¼	⅛ ⅜	Fully pd.
50000	Providencia and New Rosario, s, Mexico*	1 0 0	—		Fully pd.
50000	Rica, g, Colombia* (40000 issued)	1 0 0	¼	⅛ ¼	Fully pd.
£2,131,000	Rio Tinto,* c, Huelva, Spain	Stock	61	56 58	Fully pd.
100000	Rossa Grande, g, Brazil*† (£1 shares)	0 19 0	⅛	⅛	July 1872
30000	Russia Copper, Orenburg and Ufa*†	10 0 0	2¼	1¾ 2¼	Fully pd.
25000	San Pedro, c, Chili*	2 0 0	⅞	⅝ ⅞	Fully pd.
10000	Silver Plume, s, Colorado*	1 0 0	—		Fully pd.
37500	Snowdrift, s, Colorado*	2 0 0	—		Fully pd.
30000	Tecoma, s, Utah*	10 0 0	⅝	⅜ ⅝	Fully pd.
20000	Thornhill Reef, g, Australia*	1 0 0	—		Fully pd.
43174	United Mexican, s, Mexico*†‡	28 15 3	2½	2 2½	May 1875
14000	Utah, g, s-l, Utah*	5 0 0	—		Fully pd.
75000	Yorke Peninsula, c, South Australia	1 0 0	⅜	⅛ ⅜	Fully pd.
40000	Yorke Peninsula, c, South Australia Preference	1 0 0	1	¾ 1	Fully pd.

§ Have made calls since last dividend was paid.

FOREIGN AND MISCELLANEOUS STOCKS, BONDS, LOANS, AND TRUSTS.

	Closing Prices.	
Argentine, 1868, 6 per cent.	59	61
Bolivia, 6 per cent.	17	19
Brazilian, 1865, 5 per cent.	88	90
Chilian, 1866, 7 per cent.	97	101
City of Providence, 5 p.c. coupon bonds	98	100
Egyptian, 1862, 7 per cent.	40	41
Do., 1868, 7 per cent.	41	42
Do., 7 per cent., V.M.L.	53	58
Do., 9 per cent. guar.	61	66
Do., 7 per cent., K.M.L.	31	33

	Closing Prices.	
Foreign and Col. Gov. Trust, 6 p. cent.	55	65
Do., 5 per cent., 2d issue	45	55
Do., 6 per cent., 3d issue	48	55
Do., 1872, 4th issue	48	54
Do., 1873, 5th issue	43	50
Peruvian, 1870, 6 per cent.	13	15
Do. 1872, 5 per cent.	11	12
Russian, 5½ per cent. L. Mort.	—	—
Spanish, Quicksilver Mort. 5 p. cent.	89	91
United States Mort., 6 per cent.	92	94

NON-DIVIDEND MINES.

Shares.	Mines.	Paid.	Last wk.	Clos. pr.
40000	Aberdaunant, l, Llanidloes*	1 0 0	—	
10000	Aberystwith,* s-l, Cardigan	5 0 0	—	
7800	Alvig. & Burng.,* t, St. Aust. (3l. sh.)	2 10 0	3⅜	3¼ 3⅜
18000	Ambrose Lake, t, c, Liskeard	1 18 6	—	
12000	Assheton, l, Carnarvonshire*	5 0 0	2	1½ 2
50000	Ballycummisk,* c, Schull	2 0 0		
12000	Bedford United, c, Tavistock	1 19 6	¾	⅝ ¾
28000	Belstone,* c, Devon (27,000 fy. pd.)	1 0 0	2¾	2½ 2¾
15000	Blaen United,* s-l, Cardigan	1 0 0	—	
3937	Blue Hills, t, c, St. Agnes	3 7 6	—	
30000	Bodidris,* l, bl, Denbighshire	1 0 0	1⅛	1 1¼
2000	Bowden Hill,* mn	1 0 0	—	
6000	Bradwell Moss Rake	1 0 0	1⅛	⅞ 1
40000	Caldbeck Fells, l, Cumberland*	2 0 0	—	
15000	Cathedral, t, c, Gwennap*	1 10 0	1½	1 1½
20000	Central Foxdale, l, I. of Man* (2l. sh.)	1 0 0	—	
10000	Central Van,* l, bl, Llanidloes	5 0 0	—	
128	Clementina, l, Llanrwst	20 0 0	40	40 50
7500	Combellack,* t, Wendron	2 0 0	—	
6000	Combmartin, s-l, North Devon	0 6 0	⅝	⅝ ¾
24000	Court Grange, s-l., Cardiganshire	0 15 0	1⅛	1 1⅛
20000	Cwm Dwyfor,* c, s-l, Carnarvonsh.	0 15 0	—	
3000	Cwmystwith (New) [5l. shares]	4 0 0	—	
512	D'Eresby Mountain, l, bl, Llanrwst	20 0 0	15	20 25
10000	Denbighshire Consolidated, l*	3 0 0	3	2½ 3
12000	Derwent,* l, Durham	4 0 0	3½	3 3½
656	Ding Dong, t, Gulval	51 9 6	—	
10000	Dubby Syke, l, Durham*	0 12 6	¾	½ ¾
4000	East Chiverton, l, Perranzabuloe	6 14 6	2½	2 2½
6000	East Goginan, l, Cardigan	2 0 0	—	
18000	East Van, l, Llanidloes*	5 0 0	6½	6 6½
20000	Elgar,* s-l, Cardiganshire	1 0 0	1¼	1 1¼
5000	Frank Mills, l, Christow	5 6 0	⅝	½ ⅝
8000	Fronvellan, l, Mont.* [4000 sh. fy pd.]	1 0 0	—	
3950	Gawton, c, Tavistock	4 3 6	⅝	⅜ ⅝
12000	Glan Clwyd,* l, Gwyddelwern	1 0 0	—	
14000	Glenroy,* s-l, Isle of Man	4 0 0	1½	1 1¼
10000	Glyn,* l, Llanidloes	2 0 0	2	1⅜ 1⅝
12000	Goginan, & Level Newydd, Card., l	2 10 0	—	
100000	Gold, g, Merionethshire	1 0 0	—	
20000	Goreu,* s-l, Carmarthen	1 0 0	1¼	1⅛ 1¼
7500	Gorsedd and Merllyn Cons., l, Flint	2 10 0	5½	4¾ 5¼
20000	Gt. E. Foxdale, l, I. of Man (1l. sh)	0 15 0	—	
9500	Great Pant-y-Pydew, l, Holywell	2 0 0	—	
6000	Gt. Wheal Eleanor, t, North Bovey	1 0 0	3	2 3
18000	Grosvenor, l, Holywell (£1 sh.)	0 15 0	—	
10000	Harehope Gill,* l, Durham (£1 sh.)	0 5 0	—	
6400	Harwood,* l, Durham	0 15 0	1	¾ 1
5000	Hush Eisteddfod Minera,* l	2 0 0	—	
200	Islay,* l, Scotland	28 0 0	—	
6000	Killifreth, t, Chacewater	1 18 0	⅞	¾ ⅞
25000	Kingston Con., s-l, Stoke Climsland	1 0 0	—	
12000	Ladywell,* l, Salop	2 10 0	1¼	1 1¼
12000	Ditto, 10 per cent. pref., 1l. each	0 5 0	⅜	¼ ⅜
2500	Levant, c, t, St. Just	9 6 6	—	
25000	Llanrhaiadr, l, Montgomery*	2 0 0	—	
30000	Llanrwst,* l, Carnarvon	2 0 0	—	
15000	Llwyn Teify,* s-l, Cardigan	1 0 0	—	
6000	Medlyn Moor, t, Wendron	1 17 4	2	2
10000	Mellanear Copper, Hayle*	1 0 0	—	
11000	Monydd Gorddu, l, Cardigan* (Red.)	5 0 0	5¼	5 5½
12000	Mount's Bay, c, Marazion	1 0 0	—	
25000	Nant-y-Ronen, s-l, Cardigan*	1 0 0	—	
15000	Nascent Copper*	1 0 0	—	
12000	Neptune,* c, Perranuthnoe	0 5 0	—	
20000	New Consols, s, a, Stoke Climsland*	3 0 0	—	
8000	New Dolcoath, t, c, Camborne*	3 0 0	—	
20000	New East Foxdale, s-l, Isle of Man	0 15 0	1¼	1⅛ 1¼
16000	New Fowey Consols, t, St. Blazey*	3 0 0	—	
1492	New Hendra, t, Breage	2 19 0	2	1½ 2
3200	New South Merllyn, l, Flint*	2 10 0	1⅜	1⅜ 1½
4000	North Cornwall, l, Cornwall	5 0 0	2	1½ 2
17000	North Laxey,* Isle of Man	2 0 0	5¼	5 5¼
20000	North Prince Patrick,* l, Holywell	1 0 0	⅞	⅝ ¾
5936	North Treskerby, c, St. Agnes	3 17 10	1⅛	1 1⅛
2000	North Wheal Towan, t, c, Illogan	1 19 6	—	
6000	Old Talargoch, l, Flintshire*	2 0 0	—	
2500	Old Tincroft, c, t, Lelant*	4 0 0	4	3 4
6400	Oola Hills,* s-l, Limerick	5 0 0	—	
12000	Pandora,* l, Carnarvon	2 0 0	—	
16923	Parys Mountain,* c, Anglesea	3 0 0	⅛	¼ ⅜
4000	Pateley Bridge, l, Yorkshire	5 0 0	3	2½ 3
6000	Pedn-an-drea Consols, t, Redruth	5 0 0	7	6⅝ 6¾
12000	Pennerley, l, Shropshire*	2 0 0	⅝	½ ⅝
30000	Perkins Beach, l, Shropshire	1 0 0	1¼	1 1¼
12000	Plynlimmon, l, Llanidloes*	2 0 0	½	⅜ ½
648	Polrose, t, Breage	21 0 0	—	
10000	Port Nigel,* s-l, Carnarvonshire	2 0 0	2½	2 2½
2000	Prideaux Wood, t, Llanivery	5 0 0	—	
12800	Prince of Wales, c, Calstock‡	1 19 6	⅜	⅛ ⅜
10000	Red Rock,* l, Cardigan	2 0 0	2¼	2 2½
6000	Relistian Consols, c, Gwinear	0 10 0	¾	½ ⅝
15000	Rookhope, l, Durham*	1 10 0	1	⅞ 1
3000	Russell, s-l, Swymbridge	0 6 0	—	
5000	Silvercross,* c, t, Marazion	1 0 0	¾	½ ¾
4200	Snowbrook, s-l, Montgomery	5 0 0	5¼	5⅛ 5¼
5000	South Carn Brea, c, t, Illogan	3 10 0	⅜	⅛ ⅜
6000	So. Cwmystwith, l, Cardiganshire	2 0 0	3½	2 3
5000	South Darren, l, Cardigan*	1 10 0	—	
512	South Dolcoath, c, t, Redruth	12 5 0	1⅛	1 1¼
18000	South Roman Gravels, l*	1 10 0	1¼	½ ¾
6000	South Roskear, t, c, Camborne	6 10 0	5	4 5
6000	South Tolcarne, t, c, Camborne	1 9 0	¾	⅛ ¾
937	South Wheal Crofty, c, Illogan	36 10 10	14	12 14
4500	South Wh. Frances, c, Illogan†	7 4 4	⅞	⅝ ⅞
432	Spearn Moor, t, Penzance‡	46 17 9	—	
6000	St. Lawrence, Amal., l, Flintshire*	2 0 0	—	
10000	St. Patrick, l, Halkin, Holywell*	1 0 0	1⅓	1⅛ 1⅜
6000	Success, &c., l, Derb. (12,000l. called)	1 0 0	—	
16000	Sunnyside,* l, Durham	2 0 0	2½	2 2½
30000	Talybont,* s-l, Talybont	1 0 0	2¼	2 2¼
6400	Teesdale,* l, Durham	1 0 0	1½	1¼ 1½
14000	Teign Valley, l, bar., Bridford	1 0 0	—	
10000	Temple, l, Cardigan*	1 0 0	1½	1 1¼
10000	Tolgus Consols,* c, Redruth	5 0 0	5	5 5¼
12000	Trebeigh Consols, s-l, St. Ive	0 7 6	⅛	⅛ ⅝
5000	Treleigh Wood, t, Redruth	5 16 0	—	
547	Trelyon Consols	15 0 0	⅝	⅜ ⅝
12000	Trethellan, s-l, Crantock*	2 0 0	—	
2563	Trumpet Consols, t, Helston§	10 0 0	—	
640	Truro*, l, Nerquis, Flintshire	10 0 0	10	10
10000	Tyn-y-Fron,* l, Cardigan	1 0 0	1⅛	1 1⅛
25000	Unity Wood, t, c, Kenwyn	4 5 6	½	⅜ ½
20000	Van Consols, l, Llanidloes*	2 10 0	2	1¼ 2
12000	West Assheton, l, Carnarvon	1 0 0	1	¾ 1
6000	West Basset, c, Illogan†‡	5 8 8	3¼	3¼ 3¾
20000	West Bryn Celyn,* l, Flintshire	1 0 0	—	
5500	West Combmartin, s-l, North Devon	1 0 0	1⅛	1 1⅛
7000	Ditto	0 2 6	⅛	⅛ ¼
3000	W. Craven Moor, l, Pateley Bridge*	10 0 0	13	12 13
5000	West Godolphin, t, c, Breage	2 6 0	3¼	3¼ 3¾
12000	West Goginan,* Cardiganshire	2 0 0	¾	½ 1
15000	West Great Work, t, Breage*	2 0 0	2¼	2⅛ 2¼
10000	West Llangynog, s-l, Montgomery	2 0 0	—	
12000	W. Maria & Fortescue, t, c, Lamer.	4 14 0	⅜	¼ ⅜
3000	West Mary Ann, l, Menheniot	0 3 6	⅛	⅛ ⅛
50000	West Milwr, s-l, Flint	1 0 0	—	
20000	West Pateley Bridge, l, Yorkshire	1 0 0	1¼	1 1¼
10000	West Roskear, t, s-l, bl, c, Camborne	0 12 0	3	2⅛ 3
15000	W. Tankerv*, l. (in 3000s. 15p.c.pref.)	3 0 0	1½	1¼ 1½
15000	West Treasvean,* c, t, Gwennap	1 0 0	1⅜	1¼ 1⅜
3000	West Wheal Peevor, t, Redruth	0 10 0	2¾	2½ 2¾
600	West Wheal Seton, c, Camborne†	47 0 0	35	30 32½
6000	Wheal Agar, c, Illogan	11 10 0	3¼	3 3½
6000	Wheal Argus, t, Sancreed	0 10 0	—	
6000	Wheal Coates, t, St. Agnes	2 0 0	2	1½ 2
6000	Wheal Crebor, c, Tavistock	4 1 0	3	2 2½
8400	Wheal Emma, t, c, Buckfastleigh	1 10 0	—	
50	Wheal Fowey and East Eliza, t	100 0 0	110	100 110
5179	Wheal Grenville, c, Camborne*	2 8 6	1¼	1 1¼
12000	Wh. Mary Hutchings,* t, Plympton	1 14 0	—	
3000	Wheal Peevor, t, Redruth	6 7 6	3	1½ 2
12000	Wheal Russell, c, Tavistock	2 1 6	⅜	¼ ⅜
4096	Wheal Uny, t, c, Redruth	13 6 6	1⅞	1½ 1⅜
480	White Cliff,* l, Llanrwst	4 0 0	4	4

b, blende cl, coal; c, copper; g, gold; l, lead; s, silver; sl, slate; s-l, silver-lead; t, tin; z, zinc.

* Limited Liability Companies; † quoted on the Stock Exchange; ‡ have paid dividends.

IRON AND COAL COMPANIES.

Shares.	Company.	Paid.
£100	Abbot, John, and Co. [L.]	£75 0 0
15	Albion Steel and Wire Co. [L.]	14 0 0
5	Alltami Colliery Co. [L.]	5 0 0
100	Ashbury Co. [L.]	90 0 0
10	Bagnall, John, and Sons [L.]	10 0 0
10	Benhar Coal Co. [L.]	10 0 0
50	Bilbao Iron Ore Co. [L.]	50 0 0
10	Bilson & Crump Meadow Coll. Co. [L.]	10 0 0
4	Blaen Cwmbach Coal Co. [L.]	4 0 0
50	Blaenavon Iron and Steel Co. [L.]	50 0 0
100	Bolckow, Vaughan, and Co. [L.]	45 0 0
50	Bowling Iron Co. [L.]	50 0 0
50	Britannia Ironworks [L.]	25 0 0
50	Brown, Bailey, and Dixon [L.]	40 0 0
100	Brown, John, and Co. [L.]	70 0 0
5	Cakemore Colliery Co. [L.]	5 0 0
100	Cammell and Co. [L.]	80 0 0
20	Cannock and Huntington Coal [L.]	6 0 0
10	Cardiff & Swansea St. Coal Co. [L.]	8 0 0
10	Cardigan Steel and Wire Co. [L.]	8 10 0
10	Central Swedish Iron and Steel [L.]	10 0 0
5	Chapel House Colliery	5 0 0
50	Charlton Iron Co. [L.]	50 0 0
50	Chatterley Iron Co. [L.]	45 0 0
10	Chillington Iron Co. [L.]	10 0 0
1	Clee Hill Colliery Co. [L.]	1 0 0
10	Consett Iron Co. [L.]	7 10 0
1	Consett Spanish Ore [L.]	1 0 0
50	Cooke, William, and Co. [L.]	40 0 0
20	Darlington Iron Co. [L.]	10 0 0
50	Davy Brothers [L.]	22 10 0
5	Diamond Fuel Co. [L.]	5 0 0
32	Ebbw Vale Co. [L.]	29 0 0
100	Fox, Samuel, and Co. [L.]	80 0 0
10	General Mining Ass. [L.] (£1 returned)	9 0 0
20	Great Western Coal Co. [L.]	17 0 0
2	Gwyngwillim Colliery Co. [L.]	2 0 0
15	Hopkins, Gilkes, and Co. [L.]	11 0 0
50	Knowles, Andrew, and Sons [L.]	17 0 0
10	Llay Hall Coal, Iron, & Firebrick [L.]	10 0 0
5	Littledean Woodside Coll. Co. [L.]	5 0 0
50	Llynvi, Ogmore, & Tondu Co. [L.]	50 0 0
10	Lydney and Wigpool Iron Ore [L.]	8 5 0
10	Marbella Iron Ore Co. [L.]	10 0 0
6	Mersey Steel and Iron Co. [L.]	5 0 0
10	Midland Iron Co. [L.]	5 0 0
5	Mold Argoed Colliery Co. [L.]	5 0 0
10	Monkland Iron and Coal Co. [L.]	10 0 0
4	Mwyndy Iron Ore [L.]	3 10 0
100	Nant-y-Glo and Blaina (8 p.c. pref.)	100 0 0
1	Nerbudda Coal and Iron	0 8 0
20	New Sharlston Collieries [L.] Pref.	20 0 0
10	Newport Abercarn Coal Co. [L.]	10 0 0
10	Northmptn. Coal, Iron & Wagon [L.]	8 0 0
10	Northfield Iron Co. [L.]	8 0 0
1	Norton Green Coal Co. [L.]	1 0 0
35	Palmer's Shipbuilding and Iron [L.]	25 0 0
100	Parkgate Iron Co. [L.]	65 0 0
20	Patent Nut and Bolt Co. [L.]	14 0 0
20	Patent Shaft and Axletree [L.]	10 0 0
20	Pelsall Coal and Iron [L.]	15 0 0
50	Phœnix Bessemer Co. [L.]	40 0 0
50	Rhymney Iron Co. [L.]	50 0 0
10	Richards and Co. [L.]	10 0 0
100	Sandwell Park Colliery Co. [L.]	100 0 0
50	Ditto New	10 0 0
100	Shotts Iron Co. [L.]	100 0 0
100	Sheepbridge Iron and Coal [L.]	55 0 0
50	Silkstone & Dodworth Cl. & Iron [L.]	27 0 0
20	Skerne Ironworks [L.]	20 0 0
50	Somorrostro Iron Co. [L.]	50 0 0
20	South Wales Coal Co. [L.]	17 0 0
100	Staveley Iron and Coal Co. [L.]	60 0 0
100	Ditto ditto New	10 0 0
20	South Cleveland Ironworks [L.]	20 0 0
10	Swansea Valley Steam Coll. Co. [L.]	6 0 0
100	Thames Iron Company	100 0 0
50	Tredegar Iron and Coal Co. [L.]	12 0 0
25	Ditto B. shares	25 0 0
20	Ulverston Mining Co. [L.]	12 0 0
1	United Bituminous Collieries [L.]	1 0 0
10	Vancouver Coal [L.]	6 0 0
100	Vickers, Sons, & Co. [L.]	100 0 0
50	Welsh Ironworks Co. [L.]	50 0 0
25	W. Cumberland I. and Steel [L.]	20 0 0
10	West Mostyn Coal [L.] (12 p.c. pref.)	5 0 0
5	West Swansea Colliery Co. [L.]	5 0 0
10	Whitehaven Iron Co. [L.]	10 0 0
100	Wigan and Whiston Coal Co. [L.]	70 0 0
100	Wigan Coal and Iron Co. [L.]	75 0 0

WAGON COMPANIES.

Shares.	Company.	Paid.	Prices.
10	Birmingham Wagon Co. [L.]	10 0 0	21½
10	Ditto, 2nd issue	4 0 0	5
10	Ditto, pref., 6 per cent.	10 0 0	13¾
20	British Wagon Co. [L.]	10 0 0	2¾
10	Gloucester [L.]	10 0 0	12¾
10	Ditto, 5th issue	5 0 0	1⅜
10	Met. Rail. Car. and Wagon Co. [L.]	5 0 0	3⅞
5	Ditto, pref., 6 per cent.	5 0 0	5⅞
50	Midland	50 0 0	95
20	North Central Wagon Co.	20 0 0	27¼
5	Rail. Car. [L.] (Oldbury)	5 0 0	10⅞
5	Ditto, pref., 6 per cent.	5 0 0	6
20	Sheffield Wagon Co. [L.]	15 0 0	3¾
10	Yorkshire Wagon Co. [L.]	10 0 0	4¾

TELEGRAPH COMPANIES.

Shares.	Company.	Paid.	Prices.
"St."	Anglo-American	100 0 0	58¼
10	Brazilian Submarine	10 0 0	6¾
20	Direct United States Cable	20 0 0	10¾
10	Eastern	10 0 0	6¾
10	East. Exten., Australia and China	10 0 0	6¾
10	Great Northern	10 0 0	7⅜
25	Indo-European	25 0 0	16
10	Mediterranean Extension	10 0 0	2¾
8	Reuters	8 0 0	11¼
Stk.	Submarine	100 0 0	225
10	West India and Panama	10 0 0	2¾
20	Western and Brazilian	20 0 0	4¾
$1000	Western Union, 7 per cent. Mort. Bonds	$1000	109

MISCELLANEOUS.

Shares.	Company.	Paid.	Prices.
Stk.	Atlantic and Great Western Leased Lines, Rental Trust	100 0 0	35
25	Austral. Mort. Land and Finance [L.]	5 0 0	4
25	Australian Agricultural	21 10 0	93
10	Avonside Engine [L.]	7 0 0	4
Stk.	Baltimore and Ohio, 6 per cent.	100 0 0	105
Stk.	Cent. of New Jersey Con. Mort.	100 0 0	50
Stk.	Cent. Pacific of Calif., 1st Mort. 6 p.c.	100 0 0	102
25	City of London Real Property [L.]	12 0 0	1
25	Copper Miners of Eng. (7 p. c. pref.)	25 0 0	
5	Credit Foncier of England [L.]	5 0 0	1¼
5	Diamond Rock Boring	4 10 0	1⅛
15	English and Foreign Credit	8 0 0	
16	Fore Street Warehouse [L.]	14 0 0	13
15	Foster, Porter, and Co. [L.]	10 10 0	11
5	Gen. Phos. & Chem. Works Co. [L.]	5 0 0	
1	Glaisdale Whinstone Quarry	1 0 0	
1	Greenhill [L.]	1 0 0	1
17	Hudson's Bay Company	17 0 0	13¼
10	Huntington Copper and Sul. Co.	9 0 0	8¾
Stk.	Illinois Central, $100 shares	100 0 0	49
Stk.	Illinois & St. Louis Bridge, 1st Mort.	100 0 0	99
Stk.	Ditto, 2nd Mort., 7 per cent.	100 0 0	65
Stk.	Illinois Cent. Sinking Fund, 5 p. cent.	100 0 0	88
Stk.	Ditto, 6 per cent.	100 0 0	98
7½	Imperial Credit [L.]	7 10 0	7¼
—	Ditto, Surplus Certificate	—	5¾
Stk.	Lehigh Val. Con. Mort., A, 6 p. cent.	100 0 0	93
10	Milner's Safe [L.]	10 0 0	9¾
25	National Discount [L.]	5 0 0	10
Stk.	N. Cent. Rail. Con. Mort., 6 per cent.	10 0 0	83
5	Patent Gunpowder Company	5 0 0	4¾
10	Pawson and Co. [L.]	6 0 0	¼ dis.
50	Peninsular and Oriental Steam	50 0 0	38
Stk.	Pennsyl. Gen. Mort. 6 p. cent., 1910	100 0 0	99¼
Stk.	Ditto, Con. Sink. Fund, 6 p. ct., 1905	100 0 0	89
Stk.	Scottish Aust. Investment Company	100 0 0	180
Stk.	Ditto, 6 per cent. Preference	100 0 0	120
10	Silber Light (ord. sh.)	10 0 0	
20	Suez Canal shares	20 0 0	
12	Telegraph Construc. & Mainte. [L.]	12 0 0	26¾
5	Ditto, Second Bonus Three per Cents	5 0 0	2¾
10	Tharsis Sulphur and Copper Co.	10 0 0	23
Stk.	Union Pacific Land Grant, 1st Mort.	100 0 0	95
Stk.	Union Pacific Railway, 1st Mort.	100 0 0	98

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